

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-21				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name Butanol				
Contractor ICF Incorporated, L.L.C.						Specify Section and paragraph of Contract SOW Assessment Issues and Documents				
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
Comments: 1. Human Health Assessment Documents, E. Risk Assessment Support F. Information Management										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
11/01/2013 To 10/31/2015										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Janice S. Lee <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number 919-541-9458			
							FAX Number:			
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 703-347-8523			
							FAX Number: 703-347-8696			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number:			
							FAX Number:			
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-21

TITLE: Preparation and Revision of the IRIS Draft Toxicological Reviews of *tert*-Butanol (CASRN: 75-65-0) and ETBE (CASRN: 637-92-3)

Specify Section & Paragraph SOW: Assessment Issues and Documents 1. Human Health Assessment Documents, E. Risk Assessment Support F. Information Management

PERIOD OF PERFORMANCE: 11/1/14 to 10/31/15

I. PURPOSE

This work assignment is a follow-on to work performed in the Base Period under Work Assignment # 0-21. The purpose of work assignment is to provide continued services to the U.S. Environmental Protection Agency's (EPA) National Center for Environmental Assessment (NCEA), Office of Research and Development (ORD), in the completion of revisions to the draft IRIS Toxicological Reviews of *tert*-butanol and ETBE. The overall objective of this WA is to provide administrative, logistical, and scientific support for draft development of the human health risk assessments for *tert*-butanol and ETBE.

II. BACKGROUND

IRIS is an EPA data base containing Agency scientific positions on potential adverse human health effects that may result from chronic (or lifetime) exposure to chemicals in the environment. IRIS currently provides health effects information on over 500 chemical substances.

IRIS contains chemical-specific summaries of qualitative and quantitative health information in support of two steps of the risk assessment process, i.e., hazard identification and dose-response evaluation. IRIS information includes the reference dose for non-cancer health effects resulting from oral exposure (the RfD), the reference concentration for non-cancer health effects resulting from inhalation exposure (the RfC), and the carcinogen assessment for both oral and inhalation exposures. Combined with specific situational exposure assessment information, the summary health hazard information in IRIS may be used as a source in evaluating potential public health risks from environmental contaminants.

EPA will hold a bimonthly public meeting to provide an opportunity for input and discussion on preliminary materials for IRIS chemicals prior to the development of the assessments. The objective of this public meeting is to obtain input from stakeholders and the public on the studies and data that may be used to characterize hazard and exposure-response relationships and to develop toxicity values. Specifically, EPA is seeking input on preliminary materials including draft literature searches and associated search strategies, evidence tables, and exposure-response arrays for chemicals prior to the development of the IRIS assessments.

The overall goal of the human health risk assessments is to provide scientifically-defensible reasoning for the choice of critical cancer and non-cancer effects due to chemical exposure, along with the literature and principal study(ies) that best represent and support that choice. The Work Assignment Manager (WAM) will provide technical direction as necessary.

III. STATEMENT OF WORK

Task 1: Technical Editing of the Draft Toxicological Review of tert-butanol and ETBE, and IRIS Summaries

The Contractor shall conduct technical edits of the Toxicological Review prior to release for public comment/external peer review and prior to posting on the IRIS web site. The Contractor shall also conduct a technical edit of the IRIS Summary prior to posting.

Technical editing, which involves the reworking of written technical material for a specialized audience, may include: arranging tabular material; assessing illustrations to determine clarity of presentation, need for redrawing, retouching, etc.; standardizing symbols; verifying and restyling reference citations where required; and cross-checking information in text, tables, and figures, as well as correcting errors in grammar, spelling, and punctuation. This work shall be performed according to EPA guidance related to the technical editing; the Handbook for Preparing NCEA Documents shall be used as a primary reference to resolve issues involving usage and style. All products will be formatted using current versions of IRIS Summary and Toxicological Review templates. The reference list shall be formatted according to the output in HERO (i.e., the HERO format supersedes the Handbook for Preparing EPA Documents). Technical editing includes:

- a. Mechanical editing – Close reading of the manuscript to ensure correct grammar, spelling, syllabification, and punctuation; consistency of capitalization, spelling, and hyphenation; agreement of verbs and subjects; agreement of pronouns; correct use of adverbs and adjectives; beginning and ending quotation marks and parentheses; correct use of ellipsis; cross-checking contents with text to verify accuracy and consistency of headings, subheadings, and page numbers; and many other details of style.
- b. Substantive editing – Involves any or all of the following: arranging or rearranging tabular material; assessing illustrations to determine clarity of presentation, need for redrawing, retouching, etc; standardizing symbols; verifying and restyling reference citations; cross-checking information in the text to tables, figures, appendices, and references and correct apparent disagreements; correcting inconsistencies in format and style.
- c. Checking references to ensure that all references cited in the text and only those references have been included in the reference section of the document and verifying accuracy, completeness, and adherence to established format. In the event that information is missing, consulting authors or procuring copies of cited material to complete reference.
- d. HERO links – HERO links shall be added to any text in which links were not included.

The Contractor shall provide a final electronic mark-up (in ‘Track Changes’ format of Microsoft Word) of the draft Toxicological Review of Hexavalent Chromium and the IRIS Summary to the WAM no more than 20 days after receipt of the draft document from the WAM.

Task 2: Updates to Literature Search

The Contractor shall perform literature search updates during the review processes at regularly scheduled intervals during assessment development (i.e., through release for external peer review) and at least once after external peer review. The interval (i.e., number of months) between literature search updates shall be determined in consultation with the Contractor. The literature search strategy shall be consistent with the strategy for the initial hexavalent chromium literature search conducted by ICF and with the latest draft of the Handbook for IRIS Assessment Development. The Contractor shall add new references to HERO, tag references consistent with existing tags in HERO, and document the updated literature search strategy and findings.

If questions arise during the literature search and screening task (e.g., difficulties in narrowing down the number of “hits” from the search, questions about the relevance of certain types of papers or topics, retrieval of difficult to obtain documents or foreign language papers), the Contractor shall contact the WAM for further consultation.

Task 3: Maintenance of the HERO Database for *tert*-butanol and ETBE

The Contractor shall perform the following to ensure the HERO database is up to date with the most current Toxicological Reviews of *tert*-butanol and ETBE:

- Ensure that all literature referenced in the IRIS document can be found in HERO
- Ensure that references listed in HERO for a “*tert*-butanol” or “ETBE” search but are not referenced in the IRIS document do not contain tags that suggest otherwise
- Ensure that references are appropriately tagged, both in their HERO listings and in the hyperlinks embedded in the document
- Ensure that retrieved pdfs of references in the IRIS document are uploaded to HERO

OPTIONAL TASKS

The following tasks are optional. If EPA determines the services under these tasks are required, the EPA WAM will initiate by issuing written technical direction. These optional tasks should be addressed in the technical proposal and included in the cost proposal of the work plan.

Optional Task 4: Update and Quality Assurance of Evidence Tables

The Contractor shall provide support to EPA in performing updates and quality assurance checks of tables that summarize organ-specific toxicity in human studies and animal bioassays (i.e., evidence tables). Updates of evidence tables shall be performed to add new studies identified through literature search updates performed during development of the draft assessment or during review steps. Quality assurance checks shall include the following: comparison of table entries to information from the original publication, checking conversions as appropriate (e.g., ppm to mg/m³), confirming effect levels, and inserting and verifying HERO links. For each health effect category, separate evidence tables will be developed (if data are available), and all routes of exposure will be considered, including inhalation, oral, and dermal. The quality assurance check should be performed by a scientist that was not involved in the initial development of the table being reviewed. These tables will be provided to the Contractor by the WAM.

Optional Task 5: Additional Dose-Response Modeling

Additional endpoints may be identified by the WAM that need to be modeled. The Contractor shall use the most recent version/updates of EPA’s BMDS. The Contractor shall:

- i. Model all endpoints as requested by the WAM, where the data set supports modeling.
- ii. Identify data that may not be amenable or reliable to model.
- iii. Identify important or unusual statistical uncertainties in the data or the fitted models.
- iv. Adhere to EPA’s most recent BMD Technical Guidance¹ in conducting the modeling. If any exceptions to the guidance are used in an analysis (e.g., by disabling default parameter constraints) these exceptions should be noted and explained.
- v. Be cognizant of the information contained in BMDS help/training materials² when modeling the data or comparing models. Deviations may be allowed if adequately explained and justified to Agency experts.

¹ U.S. EPA (2000) National Center for Environmental Assessment, Benchmark Dose Technical Guidance Document. Available from: <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=22506>

² U.S. EPA NCEA *supra* note 1.

- vi. For dichotomous data, derive three candidate points of departure (PODs) for each endpoint (i.e., BMDL10, BMDL5, BMDL1). For continuous data, derive PODs using a BMR of one standard deviation from the control mean.
- vii. For all models fitted, report, in a tabular format, key statistics for model goodness-of-fit (e.g., chi-square statistic and associated p-value) and model comparisons (e.g., Akaike's Information Criterion (AIC) value).
- viii. In conducting model comparisons and selecting models, EPA guidelines should be followed³. Deviations may be allowed if adequately explained and justified to Agency experts.
- ix. In selecting models, the following guidelines should be adhered to, but deviations may be allowed if adequately explained and justified to Agency experts.

Testing goodness-of-fit

- a. The chi-square goodness-of-fit p-value should be > 0.1 .
- b. All chi-squared residuals < 2.0 .
- c. By visual inspection, the model should exhibit a reasonable fit to the data.

Model selection

- a. Models with the lowest AICs are preferred. Models with AICs that differ by less than 0.5 or so are generally considered not significantly different from one another.

Optional Task 6: Preparation of Exposure-Response Arrays

The Contractor shall develop exposure-response arrays, i.e., figures that provide a visual display of information in evidence tables. In general, a figure will be developed for each health effect category, with separate figures developed for oral and inhalation study information. The Contractor shall consult with EPA to determine the data sets to be represented in each array and the order of these data sets on the array. At present, EPA is typically using Microsoft Excel for generating these arrays. The Contractor may be asked to consider alternative software for generating these figures.

Optional Task 7: Support in Addressing Comments on the Toxicological Reviews following the Public Bimonthly Meeting and Various Review Steps

The Contractor shall provide support to the EPA in addressing comments received during the public bimonthly meeting and various review steps, including Agency review, interagency review, external peer review, and public comment. EPA cannot anticipate the number or nature of comments that will be received at each review step or the specific type of Contractor support that will be required following any given review step. EPA estimates that support will consist of the following tasks: summarize comments by topic or issue, research special topics or issues that may be raised in comments, conduct additional BMD or other modeling/analysis as appropriate, revise the Toxicological Review in response to comments, and assist in developing written responses to comments. The Contractor may also be asked to populate Comment-Tracker, an Access database developed by EPA to manage comments (and responses) on the draft assessment. The Contractor may also be asked to attend the interagency review meeting (via teleconference) and take notes during that meeting for internal use. All of these tasks will require a quick turn-around time.

³ U.S. EPA *supra* notes 1, 2, and 4

Optional Task 8: Preparation of IRIS Summary

Prior to final Agency review and interagency science discussion, the Contractor shall prepare the IRIS Summary. The IRIS Summary shall be developed using the latest IRIS Summary template (to be provided by the WAM) and instructions for IRIS Summary development in the SOPs. The IRIS Summary shall be generated by extracting appropriate text from the current draft Toxicological Review (i.e., the draft that reflects revisions in response to external peer review comments). Little new writing will be required. The WAM will provide the Contractor with the appropriate draft of the Toxicological Review to use in developing the IRIS Summary. The Contractor shall submit the draft IRIS Summary to the WAM for review.

The WAM will provide to the Contractor EPA's comments on the draft IRIS Summary. The Contractor shall revise the IRIS Summary based on EPA's comment and submit the revised final draft IRIS Summary to the WAM.

IV. ANTICIPATED DELIVERABLES

All products by the Contractor must be of high quality, written in a clear concise style, with a logical organization and presentation. Deliverables shall be provided to EPA in electronic formats compatible with EPA-supported software (e.g., Excel spreadsheets, Word documents, BMDS accessory files [*.d), *.out, *.opt, *.ssn]).

V. DELIVERABLES AND SCHEDULE

Task 1: Technical Editing of the Draft Toxicological Reviews and IRIS Summaries	No more than 20 days after receipt of the draft Toxicological Reviews and no more than 10 days after receipt of the IRIS Summaries from WAM
Task 2: Updates to Literature Search	For each update, no more than 30 days after initiation of literature search
Task 3: Maintenance of the HERO Databases	To be performed concurrent with literature search updates
Optional Task 4: Update and Quality Assurance of Evidence Tables	No more than 7 days after discussion with WAM
Optional Task 5: Additional Dose-Response Modeling	No more than 7 days after discussion with WAM
Optional Task 6: Preparation of Exposure-Response Arrays	No more than 7 days after discussion with WAM
Optional Task 7: Support in Addressing Comments on the Toxicological Reviews following Various Review Steps	To be determined based on the nature of the Contractor support required
Optional Task 8: Preparation of IRIS Summary	7 days after final draft Toxicological Review is provided to the Contractor by EPA

Note: All days are calendar days.

VI. MANAGEMENT CONTROLS

1. All deliverables shall be reviewed for conformance to the requirements of this work assignment before being approved as final.

2. The contractor shall comply with other applicable requirements for final work assignment reports stipulated in contract.

VII. NOTICE REGARDING GUIDANCE PROVIDED UNDER THIS PROJECT

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or work assignment, the contractor shall immediately contact the PO , WAM or CO

VIII. SPECIAL CONDITIONS AND ASSUMPTIONS

The contractor shall hold a conference call with the EPA WAM at the initiation of the work assignment, and shall provide a bi-weekly update to the WAM by telephone for the duration of the work assignment, in addition to the standard reporting requirements of the contract.

IX. EPA CONTACT INFORMATION

Copies of all correspondence pertaining to the performance of this work assignment shall be sent to the PO.

Work Assignment Manager (WAM):

Janice S. Lee
Telephone: 919-541-9458
Fax: 919-541-2985
e-mail: lee.janices@epa.gov

Mailing Address:
U.S. Environmental Protection Agency
Mail code B-243-01
RTP, NC 27711

Overnight Delivery location:
U.S. Environmental Protection Agency (B243-01)
4930 Page Road
Durham, NC 27703

Alternate Work Assignment Manager:

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Fax: 703-347-8689
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Mailing Address:
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 8601P
Washington, DC 20460

Overnight Delivery location:
Potomac Yards North
2733 Crystal Drive
Rm # N7845
Arlington, VA 22202

Appendix A

Quality Assurance Instructions for Contractors Citing Secondary Data

Section 515 of the Treasury and General Government Appropriations Act for fiscal year 2001 directed the Office of Management and Budget (OMB) to issue guidelines to all Federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of the information they disseminate. This law and the OMB guidance subsequently issued in 67 FR 8452 (02/22/02) underscore the need for EPA/NCEA to assess the quality and credibility of the secondary research information cited in its assessment documents.

Secondary research information is defined as information that was originally produced for one purpose but is now being recompiled or reassessed for a different purpose. Secondary research information usually originates from such primary sources as journal articles, books, government and industry reports, databases, and models. The set of processes that follows serves as a guide to evaluate the strength of secondary data gathered from these primary sources.

The Contractors must list the sources for the references cited in his/her document chapters or sections. The source list will include but not be limited to the names of any commercially available or local databases searched by computer or by hand, the search terms and search strategy used, and the time period of the search. List any print sources like books or journal articles which provided references. List any sources of raw data.

After fully reporting all of the reference sources, identify the most relevant information or key studies among the references you cite and critically evaluate them. Key studies are those most crucial or pivotal to answer the research questions for the project. The key study may have positive or negative results and may even be all that is currently available on the research topic, but the key study is integral to any discussion of the topic. Sometimes, the key study is not recognizable until all of the literature is gathered and evaluated. Key studies should exhibit at least most of the general attributes defined below:

FOCUS: the work not only addresses the area of inquiry under consideration but also contributes to its understanding;

VERIFY: the work is consistent with accepted knowledge in the field or, if not, the new or varying information is documented within the work; the work fits within the context of the literature and is intellectually honest and authentic;

INTEGRITY: Is the work structurally sound? In a piece of research, is the design or research rationale logical and appropriate?

RIGOR: the work is important, meaningful, and non-trivial relative to the field and exhibits sufficient depth of intellect rather than superficial or simplistic reasoning;

UTILITY: the work is useful and professionally relevant; it makes a contribution to the field in terms of the practitioners' understanding or decision-making on the topic.

CLARITY: Is it written clearly and appropriately for the nature of the study?

Use the check list on the following page to evaluate the key studies.

DATA CHECKLIST FOR EVALUATING A STUDY

1.) Bibliographic identification of the study.

Study Identifiers:

Author(s):

Title:

Study Citation:

Storage location (e.g., library, facility archive, personal archive):

2.) Why is the study key to the particular project? (For example, is the study an example of new research or confirmation of previous work? Is the study's population larger or followed for a longer period of time than before, is the methodology better than other studies or corrective of problems in previous studies, or do the results provide new insight into the problem?)

3.) Summarize the study structure and methodology. What sampling techniques and statistical tests are used?

4.) Potential problem areas in the study; consider: study design, factors occurring within and outside of the study which may affect its validity, sampling errors, and any other perceived weaknesses.

5.) Do any data used from sources outside of the study seem reliable and generally free of measurement error? Discuss and give examples.

6.) Evaluate the study in terms of the appropriateness of the analytical methodology. In responding, consider the following questions:

Are research questions clearly stated; dependent and independent variables clearly defined?

Do the authors explain the type of data obtained from measures of the variables?

Are statistical methods adequately described; are they justified?

Is a source provided for the any statistical software used to analyze the data?

Is the purpose of the analysis clear?

Are any scoring systems described?

Are potential confounders adequately controlled for in the analysis?

Are analytic specifications of the variables consistent with the evaluation questions or hypotheses under study?

Is the unit of analysis specified clearly?

If statistical tests are used to determine comparability or difference, are p values provided; is the practical significance of these findings, as contrasted with the statistical significance, discussed?

7.) Evaluate the study's results. Consider the following questions:

Are study questions (objectives, hypotheses) clear?

Are all study questions answered?

Are negative findings presented?

Are missing data explained?

Are text and tables, figures, and graphs consistent?

8.) Evaluate the study's conclusions. Consider the following questions:

Are the conclusions based on the study's data in that findings are applied only to the sample that was included in the research?

When the authors compare their findings with those from another study, do the authors demonstrate the similarity of the two studies?

Does the author discuss limitations of design, sampling, data collection, etc.?

To what extent do the limitations affect one's confidence in the conclusions?

9.) How strong is the study, overall; relative to other similar studies? Do its weaknesses jeopardize its being a key study, or is it usable despite the reservations?

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						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name Butanol				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW Assessment Issues and Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
Comments: This action approves the work plan in its entirety, but the contractor shall not exceed \$41,951.00 unless or until optional tasks are exercised and this cost ceiling is increased. The Government may or may not initiate optional tasks 4, 5, and 6.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO (Max 2) <input type="checkbox"/> Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00				LOE: 0				
11/01/2013 To 10/31/2015										
This Action:		\$75,001.00				812				
Total:		\$75,001.00				812				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 11/21/2014		Cost/Fee: \$75,001.00				LOE: 812				
Cumulative Approved:		Cost/Fee: \$75,001.00				LOE: 812				
Work Assignment Manager Name Janice S. Lee <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number 919-541-9458 FAX Number:				
Project Officer Name Melissa Revelly-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696				
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Contract Number EP-C-14-001		Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1		Title of Work Assignment/SF Site Name NexGen					
Contractor ICF INCORPORATED, L.L.C.				Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 12/07/2014 To 10/31/2015			
Comments:									
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Work Plan / Cost Estimate Approvals									
Contractor WP Dated:		Cost/Fee:		LOE:					
Cumulative Approved:		Cost/Fee:		LOE:					
Work Assignment Manager Name Rob Dewoskin <div style="display: flex; justify-content: space-between; border-top: 1px solid black; margin-top: 10px;"> (Signature) (Date) </div>							Branch/Mail Code: Phone Number 919-541-1089 FAX Number:		
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between; border-top: 1px solid black; margin-top: 10px;"> (Signature) (Date) </div>							Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696		
Other Agency Official Name <div style="display: flex; justify-content: space-between; border-top: 1px solid black; margin-top: 10px;"> (Signature) (Date) </div>							Branch/Mail Code: Phone Number: FAX Number:		
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**PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-22**

TITLE: NexGen Report

Specify Section & Paragraph SOW: A. Assessment Issues and Documents

PERIOD OF PERFORMANCE: CO approval through 10/31/15

I. PURPOSE

The purpose of this Work Assignment (WA) is to provide services to the US Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Center for Environmental Assessment (NCEA), to prepare an article suitable for publication in a peer-reviewed scientific journal on the NexGen Report, provide editing and additional services where necessary.

II. BACKGROUND AND OBJECTIVES

NCEA published a final report (NexGen report) of its Next Generation Risk Assessment: Incorporation of Recent Advances in Molecular, Computational, and Systems Biology on September 26, 2014. The report discusses how NCEA anticipates incorporating new data streams into the risk assessment process, and provides illustrative case studies.

Previous contract support on WA 0-22 helped NCEA respond to comments on drafts of the NexGen report, edit and revise the report, and prepare related materials to inform stakeholders about the final report. NCEA would now like to add a task in WA 1-22 for assistance in preparing a review article based on the NexGen report suitable for publication in peer reviewed scientific journal.

III. STATEMENT OF WORK

The contractor shall be responsible for assisting NCEA in the preparation of a review article based on the NexGen report suitable for publication in peer reviewed scientific journal. The timeframe for completion of this task is below.

Task 4: Assistance in preparing a article suitable for publication in a peer reviewed scientific journal

The contractor shall:

- Arrange a meeting with the EPA WAM, key EPA and ICF staff to develop a plan to accomplish this task
- Review, format, and edit a draft of a review article based on the “Next Generation Risk Assessment: Incorporation of Recent Advances in Molecular, Computational, and Systems Biology” report that is suitable for publication in a peer reviewed scientific journal.
- Assist in soliciting and summarizing internal and external review comments on drafts of the report.
- Assist on preparing a final draft based on internal and external review comments and EPA responses.

Task 4	Description	Date
	Review/format/edit a draft article for publication in a peer-reviewed scientific journal.	Completed by January 10, 2015
	Assist in soliciting and summarizing internal and external review comments.	Completed by June 30, 2015
	Assist in preparing a final draft based on comments and EPA response to comments.	Completed by October 31, 2015

IV. Notice Regarding Guidance Provided Under this Work Assignment:

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or WA, the contractor shall immediately notify the WAM. The contractor shall also ensure that work under this Task Order does not contain any apparent or real personal or organizational conflict of interest. The contractor shall certify that no conflicts exist at the time the proposal is submitted to the EPA.

V. Instructions to the Contractor

Assumptions made in the preparation of the work plan shall be explicitly stated.

VII. EPA Contact Information

Electronic copies of all correspondence pertaining to the performance of this WA shall be sent electronically to the EPA PO.

Work Assignment Contracting Officer Representative (WA-COR):

Rob DeWoskin
Hazardous Pollutant Assessment Group, Research Triangle Park Division
National Center for Environmental Assessment
U.S. Environmental Protection Agency
(919) 541-1089; DeWoskin.Rob@epa.gov

Work Assignment Contracting Officer Representative (WA-COR):

Lyle Burgoon
(919) 541-7808; burgoon.lyle@epa.gov

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-22				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name NexGen				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 12/07/2014 To 10/31/2015				
Comments:										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <input type="checkbox"/>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		\$0.00		LOE:		0		
11/01/2013 To 10/31/2015										
This Action:				\$16,565.00				132		
Total:				\$16,565.00				132		
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:		12/29/2014		Cost/Fee:		\$16,565.00		LOE: 132		
Cumulative Approved:				Cost/Fee:		\$16,565.00		LOE: 132		
Work Assignment Manager Name Rob Dewoskin <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number 919-541-1089 FAX Number:				
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number: 513-487-2107				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-22				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			NexGen Report				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 12/07/2014 To 10/31/2015					
Comments: This amendment is to name the new COR, Allen Davis and Alt. COR, Geniece Lehmann.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO (Max 2) <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
11/01/2013 To 10/31/2015										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Allen Davis							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number 919-541-3789			
							FAX Number:			
Project Officer Name Melissa Revely-Wilson							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 703-347-8523			
							FAX Number: 703-347-8696			
Other Agency Official Name							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name Adam Meier							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-24	
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-14-001		Contract Period 11/01/2013 To 10/31/2015		Title of Work Assignment/SF Site Name			
		Base Option Period Number 1		Livestock Management			
Contractor ICF Incorporated, L.L.C.				Specify Section and paragraph of Contract SOW A2 Exposure Assessment Documents			
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance From 11/01/2014 To 10/31/2015			
Comments:							
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund							
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.							
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents) Site/Project (Max 8) Cost Org/Code (Max 7)
1							
2							
3							
4							
5							
Authorized Work Assignment Ceiling							
Contract Period: 11/01/2013 To 10/31/2015		Cost/Fee:		LOE:			
This Action:							
Total:							
Work Plan / Cost Estimate Approvals							
Contractor WP Dated:		Cost/Fee:		LOE:			
Cumulative Approved:		Cost/Fee:		LOE:			
Work Assignment Manager Name Sarah Taft						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number 513-596-7037	
						FAX Number:	
Project Officer Name Melissa Revely-Wilson						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number: 703-347-8523	
						FAX Number: 703-347-8696	
Other Agency Official Name						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number:	
						FAX Number:	
Contracting Official Name Adam Meier						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number: 513-487-2852	
						FAX Number: 513-487-2107	

PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-24

TITLE: Exposure assessment of livestock carcass management options

Specify Section & Paragraph SOW: A2 Exposure Assessment Documents.

I. OBJECTIVES

The main objectives of this Work Assignment (WA) are to determine:

- Hazards associated with livestock carcass management options following a natural disaster
- Exposure pathways associated with each identified carcass management option
- Calculated exposures for each exposure pathway with sufficient data to quantify
- Levels of uncertainty in the calculated exposures
- Carcass management options that are the least likely to result in exposure impacts to additional livestock, human health, and/or the environment
- Knowledge gaps for further study to help minimize uncertainties in the assessment

II. BACKGROUND

The U.S. Environmental Protection Agency's (EPA's) National Homeland Security Research Center (NHSRC) was established to conduct research in support of indoor/outdoor decontamination and water security. Specifically, NHSRC is responsible for assessing potential exposures associated with the intentional or accidental release of hazardous and toxic materials including chemical, biological, and nuclear agents. NHSRC is currently developing tools, technologies, and methods to aid and support this effort. One of the highest priorities of NHSRC is the applications of risk assessment methodologies that can be utilized to support decision making regarding cleanup goals, treatment technology efficacies, detection limits, and waste management options during biological contamination incidents.

Under the National Response Framework, EPA is a support agency for federalized responses to Foreign Animal Disease (FAD) outbreaks, providing support to the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA/APHIS). One of the likely areas where EPA might provide support to USDA/APHIS is in helping to assure the proper management of animal carcasses following major event such as a natural disaster or FAD outbreak. Currently, there are several accepted carcass management options including rendering, composting, sanitary landfills, permitted incinerators, open burning, and unlined burial (Figure 1). Given the incident-specific nature of a massive carcass management response, there are knowledge gaps in comparing these management technologies from environmental, cost, human health, and animal health standpoints. Developing a risk-based methodology to allow decision makers to select the most appropriate carcass management technology for a given incident would significantly improve the Nation's preparedness.

Carcass Management Options Processes									
Rendering	Load animal into truck	Cover truck	decon outside of truck	transport to rendering	unload truck	grind carcasses	cook	manage steam, tallow, and meal	Human, Ecological, and Livestock Health Risks
Sanitary Landfill				transport to landfill		bury carcasses	manage leachate, landfill gas, and solids		
Permitted Incinerator				transport to incinerator		load animals into incinerator	process	manage air emissions and ash	
Composting				transport to compost area		build windrows	manage finished compost		
Open Burning				transport to burn site		burn carcasses	manage leachate, ash, and smoke		
Unlined Burial				transport to burial site		bury carcasses	manage methane and leachate		

Figure 1. Potential carcass management option processes to evaluate for associated hazards and exposure pathways.

III. TASKS

Task 1: Workplan

The contractor shall generate a workplan describing how tasks 2-6 shall be performed. The workplan shall include the overall project purpose, scope, and approach. Each task shall be described in detail including the specifics of the personnel projected to complete each task indicating the level of expertise required, personnel labor hours, timelines to complete each task, projected costs of each task, equipment and supplies required, facilities to be used, specific standard operating procedures (SOPs) (or location of SOPs on-site if considered proprietary business information), standards and controls used for compliance with quality assurance, data analysis and calculations to be utilized, safety considerations, and the risks associated with each task along with proposed mitigations. The workplan shall outline the tasks and subtasks along with timelines projected for completion of each task and task inter-relationships. The contractor shall ensure adherence in the workplan to the existing approved Quality Assurance Project Plan developed under the previous year funding (WA0-24).

Task 2: Carcass Management Options Processes Conceptual Models and Analysis Plans

The contractor shall develop conceptual models for each of the identified carcass management options for each phase of the project. The conceptual models will qualitatively describe the management options processes to describe suspected sources, potential pathways of exposure, and potential receptors. The models shall concisely convey the underlying assumptions of the exposure assessment and how the exposure of receptors will be modeled to occur. The carcass management options conceptual models shall be developed based on available information regarding the potential fate, transport, and exposure route. The contractor shall develop preliminary analysis plans to accompany the conceptual models to identify the types of data and models that are likely be needed and any known sources of relevant information. In addition, the preliminary analysis plans will propose quantitative methods (e.g., environmental modeling), exposure metrics (based on the problem formulation), and the data needed to facilitate ranking management options by relative exposure potential. The plan also will discuss uncertainties associated with data gaps and modeling and methods for characterizing uncertainty when ranking exposures.

Deliverable: Conceptual Models Document and Analysis Plans

Performance Standard: The contractor shall provide the draft conceptual models with accompanying analysis plans document within 2 months after approval of the work plan.

Task 3: Data Gathering and Literature Review

The contractor shall conduct a thorough literature review to assess the availability of data to quantify the potential exposure doses for each identified exposure pathway in the carcass management process conceptual models for each phase of the project.

Deliverables: Literature Reviews

Performance Standard: The contractor shall provide the draft literature review and expert workshop report within 4 months after approval of the conceptual models document.

Task 4: Quantification of Potential Exposure Pathways and Relative Ranking of Management Options Final Report

The contractor shall compose a final report for the exposure assessment to include results of the previous tasks (final problem formulation, refined conceptual models, and gathered expert input and literature data). In the final report, the contractor shall also refine the conceptual models exposure pathways based on the available data from the literature and expert input to quantify potential exposures. For each identified management option, the potential exposures shall be quantified for each exposure pathways for each identified hazard. The contractor shall develop a relative ranking of the carcass management options and identify all assumptions, variabilities, and uncertainties. The final report shall also identify knowledge gaps where further study could help to minimize the uncertainty associated with the results of the exposure assessment.

Deliverables: Final Report

Performance Standard: The contractor shall provide the draft final report within 6 months after approval of the literature review.

Task 5: Communications and Progress Reports

Bi-weekly conference calls shall be conducted between the WA-COR and the contractor to keep the project team updated on tasks progress and completion as well as any unanticipated issues.

Monthly Reports: Every month, the contractor shall submit reports detailing the overall project status, including a narrative description of the work, preliminary conclusions, and path forward. The monthly report shall provide a concise summary of significant issues, changes in project status, publications, presentations, patents, results of travel, completion of scheduled milestones, project delays and other accomplishments/issues during the reporting period. This report shall also include the financial status at the end of each month (funds received, commitments, obligations, and expenditures) with a graph of the actual and projected obligations and expenditures for the current fiscal year, and new digital pictures relevant to the project.

The contractor shall provide monthly a list of all documents prepared about work done under contract funding to include internal technical reports and presentations, external technical reports and presentations, and responses to requests, whether in written or electronic form, for information from external sources. Copies of such information shall be made available to the WA-COR on request within two weeks of the request. The contractor shall also submit combined technical and financial bi-weekly reports through email briefly and concisely updating task progress, changes in project status, significant issues, and financial status.

Outside Presentations of Project Research: Attendance at research meetings to present project results should be limited to the contractor project lead and technical staff on an as needed basis as deemed appropriate by prior consent of WA-COR. All documents or presentations associated with this project shall be cleared through WA-COR prior to submission to outside sources as described below. Travel costs associated with this project shall be approved by WA-COR prior to confirming and registering for meetings.

Reporting Requirements: All contractor generated documents and reports including task reports, interim reports, and task deliverable reports shall be considered draft upon first submission to WA-COR. WA-COR shall provide comments back to the contractor within 3 weeks of submission. The contractor shall provide a final version back to WA-COR with responses and dispositions of comments.

All references cited in submitted reports and deliverables to WA-COR shall be provided to WA-COR either as a pdf copy in electronic form on disk or hardcopy.

The contractor shall ensure that all documents prepared under this WA are technically accurate, defensible, free of errors (e.g., data entry, methodology), and editorially correct (e.g., free of typographic and grammatical errors). All supporting information shall be referenced and made available if requested.

The contractor shall be responsible for information and data collection, storage, processing, validation, calculations, reporting, and delivery to WA-COR. The contractor shall provide document preparation and revision and ensure that the products are responsive, timely, and of high quality to meet the requirements of the Agency. All documents prepared under these tasks shall respond to the issues identified by WA-COR, and include supporting references and rationale for the recommendations and conclusions given.

All written information (reports, reviewer comments and meeting reports) shall be prepared using Microsoft Word format. Any spreadsheet or database data shall be in Microsoft Office format compatible with EPA software. The literature resources shall be provided in Adobe Acrobat format (i.e., pdf file) or paper hard copy. The contractor shall provide a CD containing all data and documentation along with three hard copies of the final task deliverable reports and one copy of any references cited in the documents. The documents shall be formatted in 12-point Times New Roman Font and 1-1/2 line spacing.

Deliverables: Bi-weekly conference calls, monthly reports, and periodic meetings.

Performance Standard: The contractor shall participate in bi-weekly conference calls and meetings as needed and submit bi-weekly emails and monthly reports.

IV. DELIVERABLES AND QUALITY ASSURANCE SURVEILLANCE

Task	Deliverable	Performance Standard	Monitoring Method
1	Work Plan	Contractor shall provide the completed Work Plan within 30 days of award	WA-COR shall document whether receipt of Work Plan is timely and acceptable, and provide technical revisions as required
	Revised Work Plan	Contractor shall revise Work Plan if required and submit final Work Plan no more than 30 days after receipt of revisions	WA-COR shall document receipt of revised Work Plan, and ensure that is timely and technically acceptable
2	Conceptual Models and Analysis Plans	Contractor shall provide the completed conceptual models and accompanying analysis plans within 2 months after approval of the Work Plan	WA-COR shall document the receipt of conceptual models and analysis plans, and ensure that they are timely and technically acceptable and provide technical comments as appropriate
	Revised Conceptual Models and Analysis Plans	Contractor shall revise conceptual models and analysis plans if required and submit final models no more than 30 days after receipt of revisions	WA-COR shall document the receipt of revised conceptual models and analysis plans, and ensure that they are timely and technically acceptable
3	Literature Reviews	Contractor shall provide the completed literature reviews within 4 months after approval of the conceptual models	WA-COR shall document the receipt of literature reviews, and ensure that they are timely and technically acceptable, and provide technical comments as appropriate
	Revised Literature Reviews	Contractor shall revise literature reviews if required and submit reviews no more than 30 days after receipt of revisions	WA-COR shall document the receipt of revised literature reviews, and ensure that they are timely and technically acceptable
4	Final Report	Contractor shall provide the draft Final Report within 6 months after approval of the literature reviews and expert workshop report	WA-COR shall document the receipt of final report, and ensure it is timely and technically acceptable, and provide technical comments as appropriate
	Revised Final Report	Contractor shall revise final report if required and submit no more than 30 days after receipt of revisions	WA-COR shall document the receipt of revised report, and ensure it is timely and technically acceptable
5	Bi-Weekly Conference Calls	Contractor shall participate in bi-weekly conference calls with the WA-COR briefly updating project progress	WA-COR shall participate in these calls to identify any issues to be addressed in the research or future reports
	Monthly Reports	Contractor shall prepare monthly reports as specified in the statement of work	WA-COR shall document receipt of monthly reports and ensure that these are timely and acceptable

	Meetings with WA-COR	Contractor shall have periodic meetings with the WA-COR as needed	WA-COR shall participate in these meetings and identify any issues to be addressed
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VI. INTELLECTUAL PROPERTY

All methods, models, and assays developed by the contractor and/or provided to the contractor under this WA are the intellectual property of the NHSRC and Department of Homeland Security (DHS). All data collected and analyzed under this WA are the intellectual property of the NHSRC and DHS.

Authorship on research presentations associated with this project including, but not limited to, abstracts, posters, PowerPoint presentations, and publications shall be agreed upon prior to submission for consideration by any external organization. Authorship should reflect 1) contribution through project conception and design, 2) data acquisition, 3) data interpretation and analysis, 4) presentation preparation.

VII. NOTICE REGARDING GUIDANCE PROVIDED UNDER THIS WORK ASSIGNMENT

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

1. Formulation of Agency policy
2. Selection of Agency priorities
3. Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of this WA, the contractor should immediately contact the EPA Contracting Officer.

The contractor shall also ensure that work under this WA does not contain any apparent or real personal or organizational conflicts of interest. The contractor shall certify that none exist with its workplan.

VIII. WORK ASSIGNMENT CONTRACT OFFICER REPRESENTATIVE (WA-COR) AND ALTERNATE WA-COR

WA-COR:

Sarah Taft, Ph.D.

U.S. EPA OFFICE OF RESEARCH AND DEVELOPMENT

National Homeland Security Research Center

26 W. Martin Luther King Drive (NG-16)

Cincinnati, OH 45268

Work 513/569-7037

Cell 513/288-5460

Taft.Sarah@epa.gov

Alternate WA-COR:

Paul Lemieux, Ph.D.

U.S. EPA OFFICE OF RESEARCH AND DEVELOPMENT
National Homeland Security Research Center
109 TW Alexander Drive (E343-06)
Research Triangle Park, NC 27711
Work 919/541-0962
Cell 513/300-9958
Lemieux.Paul@epa.gov

APPENDIX A

EPA's Quality System Website: <http://www.epa.gov/quality>

EPA's Requirements and Guidance Documents: http://www.epa.gov/quality/qa_docs.html

EPA's Quality System Website: <http://www.epa.gov/quality/qs-docs/r5-final.pdf>

In accordance with EPA Order 5260.1 A2, conformance to ANSI/ASQC E4 must be demonstrated by submitting the quality documentation described herein. All Quality documentation shall be submitted to the Government for review. The Government will review and return the quality documentation, with comments, and indicate approval or disapproval. If the quality documentation is not approved, it must be revised to address all comments and shall be resubmitted to the Government for approval. Work involving environmental data collection, generation, use, or reporting shall not commence until the Government has approved the quality documentation. The Quality Assurance Project Plan (QAPP) shall be submitted to the Government at least thirty (30) days prior to the beginning of any environmental data gathering or generation activity in order to allow sufficient time for review and revisions to be completed. After the Government has approved the quality documentation, the Contractor shall also implement it as written and approved by the Government.

NHSRC's Quality System Specifications for Extramural Actions –

These requirements typically pertain to single project efforts. The five specifications are:

- (1) a description of the organization's Quality System (QS) and information regarding how this QS is documented, communicated and implemented;**
- (2) an organizational chart showing the position of the QA function;**
- (3) delineation of the authority and responsibilities of the QA function;**
- (4) the background and experience of the QA personnel who will be assigned to the project; and**
- (5) the organization's general approach for accomplishing the QA specifications in the SOW.**

NHSRC QA Requirements/Definitions List

Category Level Designations (determines the level of QA required):

- ☐ **Category I Project** - applicable to studies performed to generate data used for enforcement activities, litigation, or research project involving human subjects. The QAPP shall address all elements listed in "EPA Requirements for QA Project Plans, EPA QA/R-5.
- ☐ **Category II Project** - applicable to studies performed to generate data used in support of the development of environmental regulations or standards. The QAPP shall address all elements listed in "EPA Requirements for QA Project Plans, EPA QA/R-5.

- ☐ **Category III Project** - applicable to projects involving applied research or technology evaluations. The QAPP shall address the applicable sections of "EPA Requirements for QA Project Plans, EPA QA/R-5 as outlined in the **NHSRC's QMP: QAPP** requirements for the specific project type (see below).
- ☐ **Category IV Project** - applicable to projects involving basic research or preliminary data gathering activities. The QAPP shall address the applicable sections of "EPA Requirements for QA Project Plans, EPA QA/R-5 as outlined in the **NHSRC's QMP QAPP** requirements for the specific project type (see below).

Project Types:

These outlines of NHSRC's QAPP Requirements for various project types, from Appendix B of the NHSRC QMP (except where otherwise noted), are condensed from typically applicable sections of R-5 (EPA Requirements for QA Project Plans) and are intended to serve as a starting point when preparing a QAPP. These lists and their format may not fit every research scenario and QAPPs must conform to applicable sections of R-5 in a way that fully describes the research plan and appropriate QA and QC measures to ensure that the data are of adequate quality and quantity to fit their intended purpose.

- ☐ **Applied Research Project** - pertains to a study performed to generate data to demonstrate the performance of accepted processes or technologies under defined conditions. These studies are often pilot- or field-scale. The QAPP shall address all requirements listed in "QAPP Requirements for Applied Research Projects" from Appendix B of the NHSRC QMP.
- ☐ **Basic Research Project** - pertains to a study performed to generate data used to evaluate unproven theories, processes, or technologies. These studies are often bench-scale. The QAPP shall address all requirements listed in "QAPP Requirements for Basic Research Projects" from Appendix B of the NHSRC QMP.
- ☐ **Design, Construction, and/or Operation of Environmental Technology Project** - pertains to environmental technology designed, constructed and/or operated by and/or for EPA. The QAPP shall address requirements in the EPA Quality System document "Guidance on Quality Assurance for Environmental Technology Design, Construction, and Operation" G-11, at <http://www.epa.gov/quality/QS-docs/g11-final-05.pdf>. For additional information, you may refer to Part C of "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology," ANSI/ASQC E4-1994, American Society for Quality Control, Milwaukee, WI, January 1995.
- ☐ **Geospatial Data Quality Assurance Project** - pertains to data collection; data processing and analysis; and data validation of geospatial applications. The QAPP shall address requirements in the EPA Quality System document "Guidance for Geospatial Data Quality Assurance Project Plans" G-5S at <http://www.epa.gov/quality/QS-docs/g5g-final-05.pdf>.
- ☐ **Method Development Project** - pertains to situations where there is no existing standard method, or a standard method needs to be significantly modified for a specific application. The QAPP shall address all requirements listed in "QAPP Requirements for Method Development Projects" from Appendix B of the NHSRC QMP.
- ☐ **Model Development Project** - includes all types of mathematical models including static, dynamic, deterministic, stochastic, mechanistic, empirical, etc. The QAPP shall address requirements in the EPA Quality System document "Guidance for Quality Assurance Project Plans for Modeling."
- ☐ **Sampling and Analysis Project** - pertains to the collection and analysis of samples with no objectives other than to provide characterization or monitoring information. The QAPP shall address all requirements listed in "QAPP Requirements for Sampling and Analysis Projects" from Appendix B of the NHSRC QMP.
- ☐ **Secondary Data Project** - pertains to environmental data collected from other sources, by or for EPA, that are used for purposes other than those originally intended. Sources may include: literature, industry surveys, compilations from computerized databases and information systems, and computerized or mathematical models of environmental processes. The QAPP shall address all requirements listed in "QAPP Requirements for Secondary Data Projects" from Appendix B of the NHSRC QMP.
- ☐ **Software Development and Data Management Project** - pertains to software development, software/hardware systems development, database design and maintenance, data validation and verification systems. The QAPP shall address all requirements listed in "QAPP Requirements for Software Development Projects" from Appendix B of the NHSRC QMP.

Definitions:

Environmental Data - These are any measurement or information that describe environmental processes, location, or conditions; ecological or health effects directly from measurements, produced from software and models, and compiled from other sources such as data bases or the literature. For EPA, environmental data include information collected directly from measurements, produced from software and models, and compiled from other sources such as data bases or literature.

Incremental Funding - Incremental funding is partial funding, no new work.

Quality Assurance (QA) - Quality assurance is a system of management activities to ensure that a process, item, or service is of the type and quality needed by the customer. It deals with setting policy and running an administrative system of management controls that cover planning, implementation, and review of data collection activities and the use of data in decision making. Quality assurance is just one part of a quality system.

Quality Assurance Project Plan (QAPP) - A QAPP is a document that describes the necessary quality assurance, quality control, and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria. A QAPP documents project-specific information.

Quality Control (QC) - Quality control is a technical function that includes all the scientific precautions, such as calibrations and duplications, which are needed to acquire data of known and adequate quality.

Quality Management Plan (QMP) - A QMP is a document that describes an organization's/program's quality system in terms of the organizational structure, policy and procedures, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, documenting, and assessing all activities conducted. A QMP documents the overall organization/program, and is primarily applicable to multi-year, multi-project efforts. An organization's/program's QMP shall address all elements listed in the "Requirements for Quality Management Plans" in Appendix B of the NHSRC QMP.

Quality System - A quality system is the means by which an organization manages its quality aspects in a systematic, organized manner and provides a framework for planning, implementing, and assessing work performed by an organization and for carrying out required quality assurance and quality control activities.

R-2. EPA Requirements for Quality Management Plans (EPA/240/B-01/002) March, 2001
<http://www.epa.gov/quality/QS-docs/r2-final.pdf>.

R-5. EPA Requirements for Quality Management Plans (EPA/240/B-01/002) March, 2001
<http://www.epa.gov/quality/QS-docs/r5-final.pdf>.

Substantive Change - Substantive change is any change in an activity that may alter the quality of data being used, generated, or gathered.

Technical Lead Person (TLP) - This person is technically responsible for the project. For extramural contract work, the TLP is typically the contracting officer's representative (COR). For intramural work, the TLP is typically the Principal Investigator.

Abbreviations

COR	Contracting Officer's Representative
NHSRC	National Homeland Security Research Center
NRML	National Risk Management Research Laboratory
QA ID	Quality Assurance Identification
QAPP	Quality Assurance Project Plan
QS	Quality System
TLP	Technical Lead Person
IAG	Interagency Agreement
QA	Quality Assurance
QAM	Quality Assurance Manager
QMP	Quality Management Plan
SOW	Statement of Work
CRADA	Cooperative Research & Development Agreement

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-24				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name Livestock Management				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A2 Exposure Assessment Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
Comments:										
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Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00				LOE: 0				
11/01/2013 To 10/31/2015										
This Action:		\$265,369.00				2,635				
Total:		\$265,369.00				2,635				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 11/21/2014		Cost/Fee: \$265,369.00				LOE: 2,635				
Cumulative Approved:		Cost/Fee: \$265,369.00				LOE: 2,635				
Work Assignment Manager Name Sarah Taft <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number 513-596-7037 FAX Number:				
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number: 513-487-2107				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-24				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2016			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			Livestock carcass management				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A2 Exposure Assessment Documents					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 11/01/2014 To 10/31/2015					
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
11/01/2013 To 10/31/2016										
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Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Sarah Taft							Branch/Mail Code:			
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							FAX Number:			
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							FAX Number:			
Contracting Official Name Adam Meier							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

**PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-24-Amendment 1**

TITLE: Exposure assessment of livestock carcass management options

Specify Section & Paragraph SOW: A2 Exposure Assessment Documents.

I. OBJECTIVES

The main objectives of this Work Assignment (WA) are to determine:

- Hazards associated with livestock carcass management options following a natural disaster
- Exposure pathways associated with each identified carcass management option
- Calculated exposures for each exposure pathway with sufficient data to quantify
- Levels of uncertainty in the calculated exposures
- Carcass management options that are the least likely to result in exposure impacts to additional livestock, human health, and/or the environment
- Knowledge gaps for further study to help minimize uncertainties in the assessment

II. BACKGROUND

The U.S. Environmental Protection Agency's (EPA's) National Homeland Security Research Center (NHSRC) was established to conduct research in support of indoor/outdoor decontamination and water security. Specifically, NHSRC is responsible for assessing potential exposures associated with the intentional or accidental release of hazardous and toxic materials including chemical, biological, and nuclear agents. NHSRC is currently developing tools, technologies, and methods to aid and support this effort. One of the highest priorities of NHSRC is the applications of risk assessment methodologies that can be utilized to support decision making regarding cleanup goals, treatment technology efficacies, detection limits, and waste management options during biological contamination incidents.

Under the National Response Framework, EPA is a support agency for federalized responses to Foreign Animal Disease (FAD) outbreaks, providing support to the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA/APHIS). One of the likely areas where EPA might provide support to USDA/APHIS is in helping to assure the proper management of animal carcasses following major event such as a natural disaster or FAD outbreak. Currently, there are several accepted carcass management options including rendering, composting, sanitary landfills, permitted incinerators, open burning, and unlined burial (Figure 1). Given the incident-specific nature of a massive carcass management response, there are knowledge gaps in comparing these management technologies from environmental, cost, human health, and animal health standpoints. Developing a risk-based methodology to allow decision makers to select the most appropriate carcass management technology for a given incident would significantly improve the Nation's preparedness.

Carcass Management Options Processes									
Rendering	Load animal into truck	Cover truck	decon outside of truck	transport to rendering	unload truck	grind carcasses	cook	manage steam, tallow, and meal	Human, Ecological, and Livestock Health Risks
Sanitary Landfill				transport to landfill		bury carcasses	manage leachate, landfill gas, and solids		
Permitted Incinerator				transport to incinerator		load animals into incinerator	process	manage air emissions and ash	
Composting				transport to compost area		build windrows	manage finished compost		
Open Burning				transport to burn site		burn carcasses	manage leachate, ash, and smoke		
Unlined Burial				transport to burial site		bury carcasses	manage methane and leachate		

Figure 1. Potential carcass management option processes to evaluate for associated hazards and exposure pathways.

III. TASK

Task 1: Meeting Facilitation and Note Taking

The contractor shall facilitate an expert workshop at which invited participants discuss the exposure assessment scoping assumptions and data gaps. The contractor shall hold discussions with the WA-COR to further define the objectives of the workshop, support activities to prepare for the workshop, and facilitate the actual discussions during the workshop. The technical activities that might need support include but are not limited to the following:

- ☐ **Develop Candidate List** – Work with EPA to develop an expert candidate list of nonfederal individuals with knowledge and expertise in the relevant subjects.
- ☐ **Invite Experts** – Draft an initial e-mail to candidate experts summarizing the workshop’s objectives, effort and travel needed, and compensation terms and direct them to reply via email with their interest and

availability. Use a dedicated workshop email account to communicate with invited experts and other participants, and compile and review the responses.

☐ **Issue Nonfederal Expert Agreements** – For each non-federal expert, prepare and distribute a purchase order agreement that describes the specific tasks required to be completed in order for the expert to receive an honorarium and reimbursement for approved travel costs.

☐ **Prepare Workshop Materials** – Based on technical direction from the WA-COR, prepare workshop materials, obtain EPA approval of them, and distribute them prior to the workshop.

☐ **Provide On-site Support** – Provide on-site support for the workshop that may include registration support, serving as a liaison with the facility, ensuring the audio/visual equipment is working properly, facilitation, and note taking.

☐ **Prepare Workshop Summary** – Compile and summarize comments and other information provided by the workshop participants.

IV. DELIVERABLES AND QUALITY ASSURANCE SURVEILLANCE

Task	Deliverable	Performance Standard	Monitoring Method
1	Expert Workshop	Contract shall facilitate and help plan expert workshop with the WA-COR	WA-COR shall document receipt of workshop deliverables and ensure that these are timely and acceptable

VI. INTELLECTUAL PROPERTY

All methods, models, and assays developed by the contractor and/or provided to the contractor under this WA are the intellectual property of the NHSRC and Department of Homeland Security (DHS). All data collected and analyzed under this WA are the intellectual property of the NHSRC and DHS.

Authorship on research presentations associated with this project including, but not limited to, abstracts, posters, PowerPoint presentations, and publications shall be agreed upon prior to submission for consideration by any external organization. Authorship should reflect 1) contribution through project conception and design, 2) data acquisition, 3) data interpretation and analysis, 4) presentation preparation.

VII. NOTICE REGARDING GUIDANCE PROVIDED UNDER THIS WORK ASSIGNMENT

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

1. Formulation of Agency policy
2. Selection of Agency priorities
3. Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of this WA, the contractor should immediately contact the EPA Contracting Officer.

The contractor shall also ensure that work under this WA does not contain any apparent or real personal or organizational conflicts of interest. The contractor shall certify that none exist with its workplan.

VIII. WORK ASSIGNMENT CONTRACT OFFICER REPRESENTATIVE (WA-COR) AND ALTERNATE WA-COR

WA-COR:

Sarah Taft, Ph.D.

U.S. EPA OFFICE OF RESEARCH AND DEVELOPMENT

National Homeland Security Research Center

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Cincinnati, OH 45268

Work 513/569-7037

Cell 513/288-5460

Taft.Sarah@epa.gov

Alternate WA-COR:

Paul Lemieux, Ph.D.

U.S. EPA OFFICE OF RESEARCH AND DEVELOPMENT

National Homeland Security Research Center

109 TW Alexander Drive (E343-06)

Research Triangle Park, NC 27711

Work 919/541-0962

Cell 513/300-9958

Lemieux.Paul@epa.gov

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-25				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			Uncertainty and Variability Co				
Contractor ICF Incorporated, L.L.C.					Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 11/01/2014 To 10/31/2015					
Comments: Risk Assessment Forum Uncertainty and Variability Colloquium										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO (Max 2) <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
11/01/2013 To 10/31/2015										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Michael Broder							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number 202-564-3393			
							FAX Number:			
Project Officer Name Melissa Revely-Wilson							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 703-347-8523			
							FAX Number: 703-347-8696			
Other Agency Official Name							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name Adam Meier							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

PERFORMANCE WORK STATEMENT

Contract Number: EP-C-14-001

Work Assignment Number 1-25

Title: Risk Assessment Forum Uncertainty and Variability Colloquium

SOW Section & Paragraph: A. Assessment Issues and Documents

PERIOD OF PERFORMANCE: November 1, 2014 – October 31, 2015

A. BACKGROUND

An overarching priority for EPA is to enhance the characterization of uncertainty and variability in Agency risk assessments that inform risk management decisions. A recurring recommendation of many panels internally and externally to the Agency, has been to develop processes to evaluate, address, and communicate uncertainty and variability in key computational steps of risk assessment. Current practice at EPA, supported by numerous guidance documents/policies, tools, and methods, varies from simple to more complex analyses. To incorporate recent advances in uncertainty and variability analysis and to facilitate consensus on key aspects of such analyses in light of current methods and approaches, updated or new Agency-wide materials may be needed. The development of these Agency materials may vary from rather quick dissemination/training of existing tools and practices to more complex efforts to develop consensus methods. Before an efficient and directed plan for providing the necessary tools, guidance, and methods for uncertainty and variability analyses can be pursued, consideration of the various approaches currently employed for different Agency risk assessment needs and a thorough inventory and evaluation of currently available tools is needed.

The Risk Assessment Forum (RAF) Uncertainty and Variability Technical Panel was formed to address the need to advance the science of uncertainty and variability, with the immediate purpose to develop a plan for addressing Agency needs in this area. Accordingly, it is expected that this work assignment will consider current practices and needs with regard to the various computational risk assessment steps, including characterization of source, emissions, environmental fate, exposure, dose-response assessment, and risk characterization. The Technical Panel is tasked with preparing a Current Practices Report and a Resource Inventory (e.g., policies, guidance, tools, etc.) from across the Agency (i.e. program offices and regions) that will provide the basis for discussions at an Agency-wide Colloquium. The Colloquium will allow the Technical Panel to obtain feedback and input on the Current Practices Report and Resource Inventory as to their completeness and accuracy and subsequent identification of next steps. Where feasible, the Colloquium discussions will cover the preliminary identification of gaps/needs and prioritization of next steps. The final anticipated products of this Panel are a Gap Analysis Report (to identify guidance/policy, tools/methods, and training not currently available that might improve and facilitate such analyses) and a prioritized Action Plan to address identified gaps). This task order picks up where the other one ended, refining the Resource Inventory and Current Practices report and use the colloquium to focus the gap analysis.

B. PURPOSE

This work assignment (WA) directs the Contractor to support the Technical Panel in the continued development of the Current Practices Report and Resource Inventory and the coordination and conduct of the Agency-wide Colloquium. The Panel has already undertaken a data collection effort where Panel members have collected

information on how the various programs within EPA characterize uncertainty and variability and how that information is used (or not) to support decisions. The Contractor will have access to this information and other information as needed consistent with the Confidentiality Clause provided in Section H.

This WA will serve as a generic task list with the intention that technical direction will be issued for each specific task. The technical direction will contain instructions and timelines specific to the initiative.

C. KNOWLEDGE AND SKILLS REQUIRED

The Contractor shall provide technical support to the RAF Technical Panel in developing a Current Practices Report and Resource Inventory related to how uncertainty and variability are addressed and considered within various programs at EPA and other similar regulatory agencies. The Contractor will also be required to provide support to the Panel to organize and carry out a virtual Agency-wide Colloquium to discuss these products.

To support the development of the two stated products, the tasks require expert personnel with experience in risk assessment, especially in uncertainty and variability, having the knowledge and ability to identify, evaluate, and summarize current practices, best practices, and the quality and relevance of existing resources (e.g. policies/guidance, regulatory/statutory foundation, and tools/methods). They must also be capable of presenting highly technical information in a manner that is easily understood by individuals from a broad range of disciplines. To support the organization and conduct of the Agency-wide Colloquium, the tasks require expert personnel in all aspects associated with organizing such large scale events.

STATEMENT OF WORK- Establish Communication

Within 3 days of start date of this WA, the Contractor shall schedule a conference call with the WAM and appropriate contractor staff to clarify outstanding questions and confirm the schedule and specific tasks.

Task 1. Revise and Finalize Development of the *Current Practices* and *Resource Inventory* Database and Reports

This task involves the ongoing development of the *Current Practices* and *Resource Inventory* products both prior to and following the colloquium. The Contractor, working with the COR, shall evaluate the resources in the products as to their quality and utility, and provide recommendations on how best to characterize their possible contributions to improving uncertainty and variability characterization in EPA assessments and decisions. The Contractor shall review comments from the technical panel on the content and arrangement of the data to improve the presentation of the information and modify the organization accordingly in preparation for the colloquium. The Contractor shall participate in technical panel meetings in which the products are discussed and provide assistance and input as appropriate. Per technical direction, these products may be listed in either a spreadsheet and/or database format. Following the colloquium, the Contractor shall assist the COR and the Technical Panel with finalizing both products. Timeframes for completion of these document will be provided through technical direction. The Contractor, under guidance from the COR, shall review the items in the resource inventory and organize each one into a category to be defined by the COR, such as case studies, computational models, instructional material, etc, and rank them based on their overall quality and utility to characterizing uncertainty and variability using best judgement. Finally, the Contractor shall revise the draft narrative per technical direction.

For both reports the Contractor shall add as a header—“**DELIBERATIVE DRAFT FOR DISCUSSION AT INTERNAL RAF WORKSHOP – DO NOT CITE, QUOTE, OR DISTRIBUTE -**” to all drafts materials prepared.

These two products will be used to conduct a data gaps report (Task 2.)

Task 2. Development of a Data Gap Report

The Contractor shall assist with the development of a data gap analysis that cross-walks the final draft of the *Current Practices* report with the final draft of the *Resource Inventory*. This cross-walk will inform technical assessors how to better assess, and communicate uncertainty and variability, and inform managers and decision makers on how to incorporate the information into the decision. The specifics of the activity will be conducted under the direction of technical directives.

The Contractor shall add as a header—“**DELIBERATIVE DRAFT FOR DISCUSSION AT INTERNAL RAF WORKSHOP – DO NOT CITE, QUOTE, OR DISTRIBUTE -**” to all drafts materials prepared.

Task 3. Manage uncertainty and variability colloquium and provide logistical support

The Contractor shall be responsible for the following logistical support of the uncertainty and variability Colloquium:

- Meeting organization
- Creation and distribution of the Colloquium announcement
- Line up outside speakers identified by the COR and technical panel
- Preparation and/or organization of visuals for presentations at the colloquium.
- Provide technical assistance with pre-colloquium webinars.
- Preparation and distribution of the agenda, background information, reports, attendance lists, and presentations.
- Take notes and summarize the Colloquium preparation.
- Take notes and summarize the Colloquium proceedings.
- Facilitate discussions at the Colloquium.
- Assist with the audio (Reservationless Plus) and visual (Adobe Connect) communication during the Colloquium
- Facilitate break out groups.
- Provide technical support.

The Colloquium will be a virtual workshop. The Contractor shall provide technical and computer support for the virtual workshop. The primary site of the workshop will be Washington, D.C. with remote locations at Research Triangle Park, Cincinnati, and EPA regional offices based on availability. The Contractor shall facilitate attendance and registration of the Colloquium, coordinate with EPA technical support to manage offsite locations, and manage the recording of the Colloquium at the primary site.

All materials shall have the following header: “**DELIBERATIVE DRAFT FOR DISCUSSION AT INTERNAL RAF WORKSHOP – DO NOT CITE, QUOTE, OR DISTRIBUTE**”

D. SCHEDULE AND DELIVERABLES

Product	Due Date
Task 1. Revise and Finalize the <i>Resource Inventory</i> and <i>Current Practices</i> reports a) Revise the <i>Resource Inventory</i> and <i>Current Practices</i> reports prior to the Colloquium. b) Finalize the Reports following the Colloquium.	a. Per technical direction. b. Per technical direction
Task 2. Development of a Data Gaps Report	a. Per Technical Direction
Task 3. Manage Uncertainty and Variability Colloquium a. Per Technical Direction b. Provide Colloquium Summary	a. November 4-6, 2014 b. Four weeks post meeting

E. ACCEPTANCE CRITERIA

Final products shall be produced by the Contractor upon the EPA WA COR's approval through written, technical direction. The Contractor shall provide all materials written as part of these tasks to the EPA WA COR, as per work assignment, in electronic format. Electronic versions shall be in MS Office, Word 2013, PowerPoint 2013, Access 2013 and Excel 2013 computer format unless otherwise stipulated.

F. QUALITY ASSURANCE REQUIREMENTS

Included in the technical memos should be an assessment of the quality of the data supporting the goals of the project. The Contractor shall assess any limitations associated with the data and analytical approaches used and how these may impact their use relative to this project's objectives.

G. MANAGEMENT CONTROLS

Periodic meetings between the EPA and the Contractor WA managers are required to discuss any questions that may arise during performance or completion of this WA. At the EPA WA COR's discretion, these meetings may occur via teleconference or video conferences. The Contractor shall document these meetings and submit copies of this correspondence to the EPA WA COR.

The EPA WA COR may identify one or more EPA technical representatives for this WA. Interaction between the Contractor and any EPA technical representative(s) designated by the EPA WA COR is solely for the purpose of presenting and discussing the information, analyses, results, or presentations related to this WA. Per the technical direction clause EPAAR 1552.237-71 of the contract, the EPA PO COR and the EPA WA COR or alternate EPA WA COR are the only representatives of the CO authorized to provide technical direction.

Per the technical direction clause, the CO and PO will be provided with copies of all technical direction.

H. CONFIDENTIALITY

Some of the information to be edited under this task may be internal information that is not ready for public distribution. The Contractor shall not discuss the contents of the document with anyone not specified as a participant in the document review process or its preparation.

Work Assignment COR:

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Office of Science Advisor
U.S. EPA (8105-R)
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Washington, D.C. 20460
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Fax: (202) 564-2070

Alternate Work Assignment COR:

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Fax: (202) 564-2070

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-25				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name Uncertainty and Variability Co				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A. Assessment Issues & Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
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This Action:		\$62,272.00		610						
Total:		\$62,272.00		610						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 11/26/2014		Cost/Fee: \$62,272.00		LOE: 610						
Cumulative Approved:		Cost/Fee: \$62,272.00		LOE: 610						
Work Assignment Manager Name Michael Broder <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number 202-564-3393 FAX Number:				
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696				
Other Agency Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number: 513-487-2107				
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number: 513-487-2107				

Work Assignment Form, (WebForms v1.0)

PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-26

TITLE: Board of Scientific Counselors (BOSC) Meeting / Conference Support

Specify Section & Paragraph SOW: Assessment Issues and Documents

PERIOD OF PERFORMANCE: November 1, 2014 to 10/31/15

1. BACKGROUND

The primary functions of the BOSC include evaluating ORD's science and engineering research programs, laboratories, and research-management practices, and recommending actions to improve their quality and/or strengthen their relevance to the mission of the EPA. For more information on the BOSC, go to <http://epa.gov/osp/bosc/>.

2. PURPOSE

The purpose of this Work Assignment is to provide: a full range of administrative and logistical support services for the conduct of Federal Advisory Committee meetings, conferences and/or teleconferences related to the Charter of the Office of Research and Development's Board of Scientific Counselors (BOSC); administrative activities required for reports prepared by the BOSC Executive Committee or its Subcommittees; and the full range of administrative support services for assimilating materials collected from extensive candidate searches conducted for either the Executive Committee, or existing or proposed Subcommittees.

The contractor's activities will not require special expertise in matters of science discussed by the Board, but the contractor should possess the practical knowledge, experience, and skills commonly used in facilitating high-level policy meetings.

Meetings of the BOSC Executive Committee and Subcommittees will generally be held on-site at US EPA (either Headquarters or a Laboratory/Center, as appropriate), if space is available, with the approval of the Designated Federal Officer (DFO). Under this work assignment, it is anticipated that contractor support shall be required for approximately four Executive Committee meetings (at least 1 is expected to be face-to-face meetings); approximately 5 face-to-face program review subcommittee meetings. In addition, contractor support shall be needed for approximately 17 conference calls (expected to be 2-3 hour calls) in support of the executive committee and subcommittee meetings. The EPA WAM will provide the meeting dates via written technical direction.

It is anticipated that approximately 6 reports shall be generated by the BOSC during the timeframe of this work assignment, and that candidate searches requiring contractor support may occur no more than 2 times per year.

3. STATEMENT OF WORK

This Statement of Work describes EPA's requirements regarding services to be rendered by the contractor for BOSC meeting and conference support. The contractor shall provide the necessary personnel and resources in the following four areas for the BOSC:

1. Pre-meeting communication and logistical support.
2. On-site technical support during meetings/teleconferences.
3. Prepare summary minutes of meetings/teleconferences.
4. Word processing for reports.

Task 1. Pre-meeting communication and logistical support

As requested by the EPA WAM, the contractor shall prepare a BOSC member's background binder for the list of invitees provided by the EPA WAM, to include agenda, minutes of last meeting (if appropriate), other background/logistical material needed for the meeting/teleconference. Via written technical direction, the meeting/teleconference dates will be provided by the EPA WAM. The contractor shall prepare a mail merge file and address labels for the list of members and invitees. All correspondence shall be transmitted under the Designated Federal Officer's name. It is anticipated that there will be approximately 30 participants for each Executive Committee meeting, and approximately 20-100 participants for each Subcommittee face-to-face meeting.

The contractor shall obtain meeting space facilities when government owned facilities are not available, as determined by the EPA WAM (this includes negotiation with hotels or other entities to obtain meeting space, as well as reservations (room blocks) for lodging that fall within U.S. Government per-diem rates and meet Agency lodging requirements).

Task 2. On-site technical support during meetings/teleconferences

The contractor shall provide recorders to take minutes at each meeting/teleconference. The contractor shall ensure that all equipment needed at the meeting is available, to include microphone equipment, laptop computers, etc., as needed and specified by the EPA WAM.

The contractor shall provide a registration table each day of the meeting and shall provide table tents and name badges of participants. The contractor shall also photocopy additional sets of handouts and materials as may be required during the course of the meeting, on a fast turnaround basis, as requested by the EPA WAM.

The contractor shall deliver to the EPA WAM any materials not distributed at the meeting or materials left behind by BOSC members within two working days after the meeting.

Task 3. Prepare summary minutes of meetings/teleconferences

The contractor shall prepare and submit to the EPA WAM draft minutes of the meetings/teleconferences within 15 working days of the end of each meeting/teleconference. The contractor shall incorporate comments and changes to the minutes per written technical direction by the EPA WAM and submit final minutes within 5 working days of receiving EPA comments. The draft and final minutes shall be provided in electronic format (Word is the Agency standard software).

Task 4. Word Processing for Reports

The contractor shall provide word processing support for any reports prepared by the BOSC Executive Committee or its Subcommittees. The contractor shall not be involved in developing the technical content of the report, and shall not provide any scientific technical expertise. The contractor shall only provide word processing services to compile, format, edit (based on Executive Committee and Subcommittee member input, plus any factual changes requested by ORD and approved by the Executive Committee), and finalize reports prepared by the Executive Committee or its Subcommittees.

The contractor shall compile/format/edit and submit draft Executive Committee/ Subcommittee reports to the EPA WAM within 15 working days after receiving report content. The contractor shall incorporate comments and changes to the reports and submit final reports to the EPA WAM within 5 working days of receiving comments. The draft and final reports shall be provided in electronic format (Word is the Agency standard software).

5. SCHEDULE OF DELIVERABLES

Product	Due Date
Workplan	15 calendar days after receipt of work assignment
Logistical Arrangements of Meeting	30 working days prior to meeting
Draft Minutes of Meeting (To EPA WAM)	15 working days after completion of meeting
Final Minutes of Meeting (to EPA WAM)	5 working days after receipt of comments from EPA WAM
Draft Exec Committee/Sub- committee reports (to	15 working days after receipt of report EPA WAM) content from EPA WAM
Final Exec Committee/Sub- committee reports (to	5 working days after receipt of comments EPA WAM) from EPA WAM

6. SPECIAL CONDITIONS

Final products shall be produced by the Contractor upon EPA WAM's approval through written technical direction. The Contractor shall provide all materials written under these tasks to the EPA WAM, as per work assignment, in electronic form. Electronic version shall be compatible with the ORD's computer systems and software, (e.g., Microsoft Word).

Separate from the Monthly Progress Report, the contractor costs shall be provided to the EPA WAM on a monthly basis, and shall be compiled separately for the Executive Committee and each Subcommittee. EPA is required to annually input cost information for each committee or subcommittee into a government-wide database, and EPA will not be able to comply with this federal requirement unless contractor costs are tracked and reported to EPA by each committee/subcommittee.

7. CONFIDENTIALITY

Some of the work assigned under these tasks may be to draft, edit, and review program and sensitive organizational information that will not be ready for broad or public distribution. The contractor shall not discuss the contents of any document with anyone not specified as a participant in the documents review process or its preparation. The EPA WAM will supply the contractor with a list of individuals involved with any documents under these tasks.

8. MANAGEMENT CONTROLS

Periodic meetings between the EPA and contractor work assignment managers are encouraged to discuss any questions that may arise during performance or completion of this work assignment. At the EPA WAM's discretion, these meetings may occur via teleconference or video conferences. The contractor shall document these meetings and submit copies of this correspondence to the EPA WAM.

The EPA WAM may identify one or more EPA technical representatives for this work assignment. Interaction between the contractor and any EPA technical representative(s) designated by the EPA WAM is solely for the purpose of presenting and discussing the information, analyses, results, or presentations related to this work assignment. The interaction will be technical communication vice technical direction. Per the technical direction clause EPAAR 1552.237-71 of the contract, the PO and the WAM or alternate WAM are the primary representatives of the CO authorized to provide technical direction.

WORK ASSIGNMENT MANAGER: Thomas Tracy

ALTERNATE WORK ASSIGNMENT MANAGER: Susan Peterson

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-26				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			BOSC Meeting				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval					Period of Performance From 11/01/2014 To 10/31/2015					
Comments:										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <input type="checkbox"/>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00				LOE: 0				
11/01/2013 To 10/31/2015										
This Action:		\$124,664.00				1,238				
Total:		\$124,664.00				1,238				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 11/21/2015		Cost/Fee: \$124,664.00				LOE: 1,238				
Cumulative Approved:		Cost/Fee: \$124,664.00				LOE: 1,238				
Work Assignment Manager Name Tom Tracy						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number 202-564-6518				
						FAX Number:				
Project Officer Name Melissa Revely-Wilson						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 703-347-8523				
						FAX Number: 703-347-8696				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name Adam Meier						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2852				
						FAX Number: 513-487-2107				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment		Work Assignment Number 1-27	
		<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-14-001	Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1	Title of Work Assignment/SF Site Name Chemical Safety for Sustainabi	
Contractor ICF Incorporated, L.L.C.		Specify Section and paragraph of Contract SOW E. Risk Assessment Support	
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance From 11/01/2014 To 10/31/2015	
Comments:			
<input type="checkbox"/> Superfund		Accounting and Appropriations Data	
		<input checked="" type="checkbox"/> Non-Superfund	
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.			
SFO (Max 2) <input type="checkbox"/>			
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)
	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)
	Amount (Dollars)	(Cents)	Site/Project (Max 8)
	Cost Org/Code (Max 7)		
1			
2			
3			
4			
5			
Authorized Work Assignment Ceiling			
Contract Period: 11/01/2013 To 10/31/2015		Cost/Fee: LOE:	
This Action:			
Total:			
Work Plan / Cost Estimate Approvals			
Contractor WP Dated:		Cost/Fee: LOE:	
Cumulative Approved:		Cost/Fee: LOE:	
Work Assignment Manager Name Monica Linnenbrink		Branch/Mail Code:	
_____ (Signature) (Date)		Phone Number 919-541-1522	
		FAX Number:	
Project Officer Name Melissa Revely-Wilson		Branch/Mail Code:	
_____ (Signature) (Date)		Phone Number: 703-347-8523	
		FAX Number: 703-347-8696	
Other Agency Official Name		Branch/Mail Code:	
_____ (Signature) (Date)		Phone Number:	
		FAX Number:	
Contracting Official Name Adam Meier		Branch/Mail Code:	
_____ (Signature) 10/30/14 (Date)		Phone Number: 513-487-2852	
		FAX Number: 513-487-2107	

PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-27

TITLE: Chemical Safety for Sustainability (CSS) meetings support

Specify Section & Paragraph SOW: E. Risk Assessment Support

PERIOD OF PERFORMANCE: 11/1/14 to 10/31/15

I. PURPOSE:

This work assignment is a follow-on to work performed in the Base Period under Work Assignment #0-27. The purpose of work assignment is to provide continued services to the U.S. Environmental Protection Agency's (EPA) Immediate Office of the Assistant Administrator (IOAA), Office of Research and Development (ORD), in the completion of providing administrative and logistical/facilitation support services for up to three additional face-to-face meetings for the Chemical Safety for Sustainability (CSS) research program. Two of the meetings will be held in Research Triangle Park (RTP), NC and the third meeting will either be held in RTP, NC or the Washington, DC area. This work assignment is consistent with the purpose and scope of Contract EP-C-14-001, Section E. Risk Assessment Support of the HHRA PWS.

II. BACKGROUND:

Chemicals are a lynchpin of innovation in the American economy, and moving toward sustainable innovation requires designing, producing, and using chemicals in safer ways. Information and methods are needed to make better-informed, more-timely decisions about chemicals, many of which have not been thoroughly evaluated for potential risks to human health and the environment. EPA's chemical safety research is designed to meet this challenge and supports the Agency priority of reducing risks associated with exposure to chemicals in commerce, the environment, products and food.

The CSS Strategic Research Action Plan 2012-2016 (StRAP) provides the overall framework for CSS research. Fiscal year 2015 (FY15) planning presented an opportunity to conduct a mid-StRAP review of the program and look for ways to integrate the research, enhance transdisciplinary collaboration, promote and foster innovation, enhance transparency and access to CSS products, and significantly amplify the impact of this important research. The addendum to the CSS 2012-2016 StRAP was developed to facilitate integration of the CSS research program. Concurrently, ORD has been gathering input from stakeholders and partners in identifying the strategic directions necessary to develop an update to the StRAP for 2016-2019. The CSS research program is looking for logistical support for meetings related to engaging our partners in order to finalize plans detailed in the 2016-2019 StRAP as well as to conduct efforts to describe and translate existing or soon to be released research project deliverables with our partners across EPA.

III. STATEMENT OF WORK:

A. Objective:

The overall objective of this work assignment (WA) is to provide administrative and logistical support for three (3) additional meetings in support of the CSS research program. Support will include planning for meeting and logistics, onsite meeting support and facilitation, a may include a summary report (including meeting and breakout discussion notes), and communication activities related to the meetings. The programs annual partner meeting, the CSS Connectome, is scheduled on May 18-21, 2015 in Research Triangle Park (RTP). The CSS ToxCast data pipeline stakeholder workshop meeting is planned for February 2015 and will also be in RTP. EPA anticipates the Connectome meeting to have approximately 100 – 150 participants. We anticipate the ToxCast data workshop to have 150-200 participants. The third meeting will be for the CSS Rapid Toxicity Values project, tentatively scheduled for August/September 2015, and we anticipate 75-100 participants. The Rapid Toxicity workshop will either be held in Research Triangle Park, NC or the Washington, DC area. This work assignment does not include logistical support related to securing a facility or any meeting rooms. EPA has or will reserve its own meeting room space for these meetings. Administrative and logistical support shall consist of the following tasks:

B. Specific Requirements (Tasks):

1. A kick-off meeting shall be held (in person and/or by phone) between the Contractor and WAM to clarify or address questions necessary to draft a workplan that will outline tasks, deliverables and due dates. The contractor shall maintain communication with the EPA WA Manager (WAM) through weekly phone calls or email updates.
2. Pre-meeting support: Administrative and logistical support services for each meeting may include:
 - Develop a registration mechanism and coordinating registration, including maintaining a list of participants.
 - Provide participants local information about hotels, restaurants, directions, transportation (airport, airport transportation, etc).
 - Preparation and distribution of meeting materials including final agenda, meeting roster, name badges and other meeting materials.
 - Working with EPA's onsite facility staff to ensure meeting rooms have AV equipment including microphone, laptop computer, projectors, screen, flip charts, tape, markers etc.
 - Setting up webinar, conference call and if applicable video conference capability for remote participation.
3. Onsite Logistical Support and Reporting
 - Providing staff to support the meeting onsite.
 - Capturing notes during the discussion including the plenary sessions and breakout groups. The notes should highlight key decisions and action items.

- Managing the registration table to ensure participants sign in, receive the meeting materials and handle any problems workshop participants may encounter.
- Manage speaker presentations to ensure presentations are loaded to the laptop, being projected and available following the event.
- Update attendee list at the end of the workshop (remove no-shows, add walk-ins).
- Providing on-site liaison services to work with facility staff to trouble-shoot any problem situations related to AV support or break-out room set-up.

4. Follow-up Meeting Support

- Summarize in a report all meeting discussions including key decisions and actions items in a post-meeting summary report. This report should include a listing of all meeting attendees.
- Post materials to event webpage.

IV. SCHEDULE OF DELIVERABLES

The following table provides a complete list of required work assignment tasks that are to be completed as part of this contract.

Work Assignment Task	Required Completion Date
Initial contact (listed above) shall be performed.	Within 3 days of award
Establish website for on-line registration	30 days prior to each of the three meetings
Submit electronic copies of registration lists and registration materials;	Two working days before each meeting
Submit updated list of registered attendees (including walk-ins), electronic version of presentation materials, and any materials submitted by presenters prior to or following the meeting.	Ten working days following each meeting
Post-meeting final report(s)	Ten working days following each meeting

V. Notice Regarding Guidance Provided Under this Project

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or work assignment, the contractor shall immediately contact the PO or WAM.

VI. Special Conditions and Assumptions

The contractor shall hold a conference call with the EPA WAM at the initiation of the work assignment, and shall provide a weekly update to the WAM by telephone or email for the duration of the work assignment, in addition to the standard reporting requirements of the contract.

Travel: Any non-local travel directly chargeable to this work assignment shall be submitted and approved by the Project Officer prior to the travel (see contract clause Local LC-31-08, Approval of Contractor Travel). It is expected that the Contractor will be requested to participate in a 2-day workshop in the Research Triangle (NC) area on dates to be determined.

EPA GREEN MEETING REQUIREMENTS: When soliciting quotes or offers for meeting and conference services on behalf of the EPA, the Contractor shall follow the contract EPAAR clause 1552.223-71, EPA Green Meetings and conferences. More information about EPA's Green Meetings initiative may be found on the internet at <http://www.epa.gov/oppt/greenmeetings/>.

VII. EPA CONTACT INFORMATION

Copies of all correspondence pertaining to the performance of this work assignment shall be sent to the PO.

Work Assignment Manager (WAM)
Monica Linnenbrink
919-541-1522
Linnenbrink.monica@epa.gov

Alternate WAM
Michael Loughran
202-564-6686
Loughran.Michael@epa.gov

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name CSS meetings support				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
Comments: The revised PWS for WA 1-27 to include the one meeting that carried over from the base period										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <input type="checkbox"/>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
11/01/2013 To 10/31/2015										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Monica Linnenbrink <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number 919-541-1522			
							FAX Number:			
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 703-347-8523			
							FAX Number: 703-347-8696			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number:			
							FAX Number:			
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

Title: Chemical Safety for Sustainability (CSS) meetings support

PERIOD OF PERFORMANCE: November 1, 2014 – October 31, 2015

I. PURPOSE:

This work assignment is a follow-on to work performed in the Base Period under Work Assignment #0-27. The purpose of work assignment is to provide continued services to the U.S. Environmental Protection Agency's (EPA) Immediate Office of the Assistant Administrator (IOAA), Office of Research and Development (ORD), in the completion of providing administrative and logistical/facilitation support services for one meeting carried over from the base period and up to three additional face-to-face meetings for the Chemical Safety for Sustainability (CSS) research program. Two Most of the meetings will be held in Research Triangle Park (RTP), NC ~~and the third~~ with one meeting will either to be held in RTP, NC or the Washington, DC area. This work assignment is consistent with the purpose and scope of Contract EP-C-14-001, Section E. Risk Assessment Support of the HHRA PWS.

II. BACKGROUND:

Chemicals are a lynchpin of innovation in the American economy, and moving toward sustainable innovation requires designing, producing, and using chemicals in safer ways. Information and methods are needed to make better-informed, more-timely decisions about chemicals, many of which have not been thoroughly evaluated for potential risks to human health and the environment. EPA's chemical safety research is designed to meet this challenge and supports the Agency priority of reducing risks associated with exposure to chemicals in commerce, the environment, products and food.

The CSS Strategic Research Action Plan 2012-2016 (StRAP) provides the overall framework for CSS research. Fiscal year 2015 (FY15) planning presented an opportunity to conduct a mid-StRAP review of the program and look for ways to integrate the research, enhance transdisciplinary collaboration, promote and foster innovation, enhance transparency and access to CSS products, and significantly amplify the impact of this important research. The addendum to the CSS 2012-2016 StRAP was developed to facilitate integration of the CSS research program. Concurrently, ORD has been gathering input from stakeholders and partners in identifying the strategic directions necessary to develop an update to the StRAP for 2016-2019. The CSS research program is looking for logistical support for meetings related to engaging our partners in order to finalize plans detailed in the 2016-2019 StRAP as well as to conduct efforts to describe and translate existing or soon to be released research project deliverables with our partners across EPA.

III. STATEMENT OF WORK:

A. Objective:

The overall objective of this work assignment (WA) is to provide administrative and logistical support for one carryover meeting and three (3) additional meetings in support of the CSS research program. Support will include planning for meeting and logistics, onsite meeting support and facilitation, a may include a summary report (including meeting and breakout discussion notes), and communication activities related to the meetings. The one carryover meeting rescheduled from the base period (CSS StRAP Update meeting) will be held on January 6-7 in RTP. The three new meetings under this work assignment include: The programs annual partner meeting, the CSS Connectome, ~~is scheduled on May 18-21, 2015 in Research Triangle Park (RTP);~~ The CSS ToxCast data pipeline stakeholder workshop meeting ~~is planned for February 2015; and will also be in RTP;~~ and the CSS Rapid Toxicity Values project, tentatively scheduled for August/September 2015. EPA anticipates the Connectome meeting to have approximately 100 – 150 participants. We anticipate the ToxCast data workshop to have 150-200 participants. ~~The third meeting will be for the CSS Rapid Toxicity Values project, tentatively scheduled for August/September 2015,~~ and we anticipate 75-100 participants for the Rapid Toxicity Values project meeting. The Rapid Toxicity workshop will either be held in Research Triangle Park, NC or the Washington, DC area. This work assignment does not include logistical support related to securing a facility or any meeting rooms. EPA has or will reserve its own meeting room space for these meetings. Administrative and logistical support shall consist of the following tasks:

B. Specific Requirements (Tasks):

1. A kick-off meeting shall be held (in person and/or by phone) between the Contractor and WAM to clarify or address questions necessary to draft a workplan that will outline tasks, deliverables and due dates. The contractor shall maintain communication with the EPA WA Manager (WAM) through weekly phone calls or email updates.
2. Pre-meeting support: Administrative and logistical support services for each meeting may include:
 - Develop a registration mechanism and coordinating registration, including maintaining a list of participants.
 - Provide participants local information about hotels, restaurants, directions, transportation (airport, airport transportation, etc).
 - Preparation and distribution of meeting materials including final agenda, meeting roster, name badges and other meeting materials.
 - Working with EPA's onsite facility staff to ensure meeting rooms have AV equipment including microphone, laptop computer, projectors, screen, flip charts, tape, markers etc.
 - Setting up webinar, conference call and if applicable video conference capability for remote participation.

3. Onsite Logistical Support and Reporting

- Providing staff to support the meeting onsite.
- Capturing notes during the discussion including the plenary sessions and breakout groups. The notes should highlight key decisions and action items.
- Managing the registration table to ensure participants sign in, receive the meeting materials and handle any problems workshop participants may encounter.
- Manage speaker presentations to ensure presentations are loaded to the laptop, being projected and available following the event.
- Update attendee list at the end of the workshop (remove no-shows, add walk-ins).
- Providing on-site liaison services to work with facility staff to trouble-shoot any problem situations related to AV support or break-out room set-up.

4. Follow-up Meeting Support

- Summarize in a report all meeting discussions including key decisions and actions items in a post-meeting summary report. This report should include a listing of all meeting attendees.
- Post materials to event webpage.

IV. SCHEDULE OF DELIVERABLES

The following table provides a complete list of required work assignment tasks that are to be completed as part of this contract.

Work Assignment Task	Required Completion Date
Initial contact (listed above) shall be performed.	Within 3 days of award
Establish website for on-line registration	30 days prior to each of the three meetings
Submit electronic copies of registration lists and registration materials;	Two working days before each meeting
Submit updated list of registered attendees (including walk-ins), electronic version of presentation materials, and any materials submitted by presenters prior to or following the meeting.	Ten working days following each meeting
Post-meeting final report(s)	Ten working days following each meeting

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V. Notice Regarding Guidance Provided Under this Project

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or work assignment, the contractor shall immediately contact the PO or WAM.

VI. Special Conditions and Assumptions

The contractor shall hold a conference call with the EPA WAM at the initiation of the work assignment, and shall provide a weekly update to the WAM by telephone or email for the duration of the work assignment, in addition to the standard reporting requirements of the contract.

Travel: Any non-local travel directly chargeable to this work assignment shall be submitted and approved by the Project Officer prior to the travel (see contract clause Local LC-31-08, Approval of Contractor Travel). It is expected that the Contractor will be requested to participate in a 2-day workshop in the Research Triangle (NC) area on dates to be determined.

EPA GREEN MEETING REQUIREMENTS: When soliciting quotes or offers for meeting and conference services on behalf of the EPA, the Contractor shall follow the contract EPAAR clause 1552.223-71, EPA Green Meetings and conferences. More information about EPA's Green Meetings initiative may be found on the internet at <http://www.epa.gov/oppt/greenmeetings/>.

VII. EPA CONTACT INFORMATION

Copies of all correspondence pertaining to the performance of this work assignment shall be sent to the PO.

Work Assignment Manager (WAM)
 Monica Linnenbrink
 919-541-1522
Linnenbrink.monica@epa.gov

Alternate WAM
Michael Loughran
202-564-6686
Loughran.Michael@epa.gov

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1			Title of Work Assignment/SF Site Name CSS Meetings				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 11/01/2014 To 10/31/2015				
Comments:										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <input type="checkbox"/>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00				LOE: 0				
11/01/2013 To 10/31/2015										
This Action:		\$100,441.00				730				
Total:		\$100,441.00				730				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 12/17/2014		Cost/Fee: \$100,441.00				LOE: 730				
Cumulative Approved:		Cost/Fee: \$100,441.00				LOE: 730				
Work Assignment Manager Name Monica Linnenbrink <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number 919-541-1522 FAX Number:				
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-347-8523 FAX Number: 703-347-8696				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number: 513-487-2107				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-C-14-001			Contract Period 11/01/2013 To 10/31/2015			Title of Work Assignment/SF Site Name				
			Base Option Period Number 1			Meeting Support				
Contractor ICF INCORPORATED, L.L.C.					Specify Section and paragraph of Contract SOW E. Risk Assessment Support					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 11/01/2014 To 10/31/2015					
Comments: There are minor changes to the meeting names and the schedule that are not expected to result in a change in cost. No revised WP or cost estimate is needed unless the contractor determines a cost change is needed.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <input type="checkbox"/>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
11/01/2013 To 10/31/2015										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:			LOE:			
Cumulative Approved:				Cost/Fee:			LOE:			
Work Assignment Manager Name Monica Linnenbrink							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number 919-541-1522			
							FAX Number:			
Project Officer Name Melissa Revely-Wilson							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 703-347-8523			
							FAX Number: 703-347-8696			
Other Agency Official Name							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name Adam Meier							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number: 513-487-2107			

Title: Chemical Safety for Sustainability (CSS) meetings support

PERIOD OF PERFORMANCE: Option 1: November 1, 2014 – October 31, 2015

I. PURPOSE:

This work assignment is a follow-on to work performed in the Base Period under Work Assignment #0-27. The purpose of work assignment is to provide continued services to the U.S. Environmental Protection Agency's (EPA) Immediate Office of the Assistant Administrator (IOAA), Office of Research and Development (ORD), in the completion of providing administrative and logistical/facilitation support services for one meeting carried over from the base period and up to three additional face-to-face meetings for the Chemical Safety for Sustainability (CSS) research program. Most of the meetings will be held in Research Triangle Park (RTP), NC -with one meeting to be held in RTP, NC or the Washington, DC area. This work assignment is consistent with the purpose and scope of Contract EP-C-14-001, Section E. Risk Assessment Support of the HHRA PWS.

II. BACKGROUND:

Chemicals are a lynchpin of innovation in the American economy, and moving toward sustainable innovation requires designing, producing, and using chemicals in safer ways. Information and methods are needed to make better-informed, more-timely decisions about chemicals, many of which have not been thoroughly evaluated for potential risks to human health and the environment. EPA's chemical safety research is designed to meet this challenge and supports the Agency priority of reducing risks associated with exposure to chemicals in commerce, the environment, products and food.

The CSS Strategic Research Action Plan 2012-2016 (StRAP) provides the overall framework for CSS research. Fiscal year 2015 (FY15) planning presented an opportunity to conduct a mid-~~StRAP~~ StRAP review of the program and look for ways to integrate the research, enhance transdisciplinary collaboration, promote and foster innovation, enhance transparency and access to CSS products, and significantly amplify the impact of this important research. -The addendum to the CSS 2012-2016 StRAP was developed to facilitate integration of the CSS research program. Concurrently, ORD has been gathering input from stakeholders and partners in identifying the strategic directions necessary to develop an update to the StRAP for 2016-2019. The CSS research program is looking for logistical support for meetings related to engaging our partners in order to finalize plans detailed in the 2016-2019 StRAP as well as to conduct efforts to describe and translate existing or soon to be released research project deliverables with our partners across EPA.

III. STATEMENT OF WORK:

A. Objective:

The overall objective of this work assignment (WA) is to provide administrative and logistical support for one carryover meeting and three (3) additional meetings in support of the CSS research program. Support will include planning for meeting and logistics, onsite meeting support and facilitation, a may include a summary report (including meeting and breakout discussion notes), and communication activities related to the meetings. The one carryover meeting rescheduled from the base period (CSS StRAP Update meeting) will be held on January 6-7 in RTP. The three new meetings under this work assignment include: The programs annual partner meeting, the CSS Connectome, scheduled on May 18-21, 2015 in Research Triangle Park (RTP); The CSS

planned for February 2015; and the CSS , tentatively scheduled for August/September 2015. EPA anticipates the Connectome meeting to have approximately 100 – 150 participants. We anticipate the ~~ToxCast data~~^{high-throughput toxicity data} -workshop to have 150-200 participants—, and we anticipate 75 participants for the meeting.

This work assignment does not include logistical support related to securing a facility or any meeting rooms. EPA has or will reserve its own meeting room space for these meetings. Administrative and logistical support shall consist of the following tasks:

B. Specific Requirements (Tasks):

1. A kick-off meeting shall be held (in person and/or by phone) between the Contractor and WAM to clarify or address questions necessary to draft a workplan that will outline tasks, deliverables and due dates. The contractor shall maintain communication with the EPA WA Manager (WAM) through weekly phone calls or email updates.
2. Pre-meeting support: Administrative and logistical support services for each meeting may include:
 - Develop a registration mechanism and coordinating registration, including maintaining a list of participants.
 - Provide participants local information about hotels, restaurants, directions, transportation (airport, airport transportation, etc).
 - Preparation and distribution of meeting materials including final agenda, meeting roster, name badges and other meeting materials.
 - Working with EPA's onsite facility staff to ensure meeting rooms have AV equipment including microphone, laptop computer, projectors, screen, flip charts, tape, markers etc.
 - Setting up webinar, conference call and if applicable video conference capability for remote participation.

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3. Onsite Logistical Support and Reporting

- Providing staff to support the meeting onsite.
- Capturing notes during the discussion including the plenary sessions and breakout groups. The notes should highlight key decisions and action items.
- Managing the registration table to ensure participants sign in, receive the meeting materials and handle any problems workshop participants may encounter.
- Manage speaker presentations to ensure presentations are loaded to the laptop, being projected and available following the event.
- Update attendee list at the end of the workshop (remove no-shows, add walk-ins).
- Providing on-site liaison services to work with facility staff to trouble-shoot any problem situations related to AV support or break-out room set-up.

4. Follow-up Meeting Support

- Summarize in a report all meeting discussions including key decisions and actions items in a post-meeting summary report. This report should include a listing of all meeting attendees.
- Post materials to event webpage.

IV. SCHEDULE OF DELIVERABLES

The following table provides a complete list of required work assignment tasks that are to be completed as part of this contract.

Work Assignment Task	Required Completion Date
Initial contact (listed above) shall be performed.	Within 3 days of award
Establish website for on-line registration	30 days prior to each of the meetings
Submit electronic copies of registration lists and registration materials;	Two working days before each meeting
Submit updated list of registered attendees (including walk-ins), electronic version of presentation materials, and any materials submitted by presenters prior to or following the meeting.	Ten working days following each meeting
Post-meeting final report(s)	Ten working days following each meeting

V. Notice Regarding Guidance Provided Under this Project

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or work assignment, the contractor shall immediately contact the PO or WAM:

VI. Special Conditions and Assumptions

The contractor shall hold a conference call with the EPA WAM at the initiation of the work assignment, and shall provide a weekly update to the WAM by telephone or email for the duration of the work assignment, in addition to the standard reporting requirements of the contract.

Travel: Any non-local travel directly chargeable to this work assignment shall be submitted and approved by the Project Officer prior to the travel (see contract clause Local LC-31-08, Approval of Contractor Travel). It is expected that the Contractor will be requested to participate in a 2-day workshop in the Research Triangle (NC) area on dates to be determined.

EPA GREEN MEETING REQUIREMENTS: When soliciting quotes or offers for meeting and conference services on behalf of the EPA, the Contractor shall follow the contract EPAAR clause 1552.223-71, EPA Green Meetings and conferences. More information about EPA's Green Meetings initiative may be found on the internet at <http://www.epa.gov/oppt/greenmeetings/>.

VII. EPA CONTACT INFORMATION

Copies of all correspondence pertaining to the performance of this work assignment shall be sent to the PO.

Work Assignment Manager (WAM)
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Linnenbrink.monica@epa.gov

Alternate WAM
Michael Loughran
202-564-6686

Loughran.Michael@epa.gov

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-29	
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-14-001		Contract Period 11/01/2013 To 10/31/2015			Title of Work Assignment/SF Site Name		
		Base Option Period Number 1			Phthalates for IRIS Assessment		
Contractor ICF INCORPORATED, L.L.C.				Specify Section and paragraph of Contract SOW A. Assessment Issues and Documents			
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance From 11/13/2014 To 10/31/2015			
Comments: Expert Consultation on Considerations Regarding Exposure Measures in Epidemiological Studies of Phthalates for IRIS Assessments							
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund							
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.							
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents) Site/Project (Max 8) Cost Org/Code (Max 7)
1							
2							
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5							
Authorized Work Assignment Ceiling							
Contract Period: 11/01/2013 To 10/31/2015		Cost/Fee:			LOE:		
This Action:							
Total:							
Work Plan / Cost Estimate Approvals							
Contractor WP Dated:		Cost/Fee:			LOE:		
Cumulative Approved:		Cost/Fee:			LOE:		
Work Assignment Manager Name Glinda Cooper						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number 703-347-8636	
						FAX Number:	
Project Officer Name Melissa Revely-Wilson						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number: 703-347-8523	
						FAX Number: 703-347-8696	
Other Agency Official Name						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number:	
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Contracting Official Name Adam Meier						Branch/Mail Code:	
_____ (Signature) (Date)						Phone Number: 513-487-2852	
						FAX Number: 513-487-2107	

PERFORMANCE WORK STATEMENT
CONTRACT NO. EP-C-14-001
WA 1-29

TITLE: Expert Consultation on Considerations Regarding Exposure Measures in Epidemiological Studies of Phthalates for IRIS Assessments

Specify Section & Paragraph SOW:

- A. Assessment Issues and Documents**
 - 1. Human Health Assessment Documents**
- D. Analysis, Document and Issue Paper Preparation**
- E. Risk Assessment Support**

PERIOD OF PERFORMANCE: CO approval through 11/30/2015

I. PURPOSE

The purpose of this work assignment (WA) is to identify, recruit, and manage one or more qualified scientists to provide consultative services with the U.S. Environmental Protection Agency's (hereinafter EPA or Agency) National Center for Environmental Assessment (hereinafter NCEA). The topics on which EPA seeks advice relate to several issues related to phthalate exposure assessment methods in epidemiological studies. These issues include but are not limited to 1) interpretation of metabolites (and methods for summing common metabolites of a given phthalate), 2) comparability between measures in different tissues (e.g., urine, serum, breast milk, seminal fluid, amniotic fluid), 3) reliability of spot urine (compared with 24-hour urine) samples; reliability of a single sample for characterizing exposure over different time periods (e.g., days, weeks, months, years); comparison of reliability data by demographic group (e.g., during pregnancy, in children), 4) appropriateness of different methods used to adjust for urine volume (e.g., creatinine adjustment, specific gravity adjustment), taking into consideration demographic group and type of outcome, and 6) trends in specific phthalate exposures over the past 10-15 years in the United States and in other countries. For each of these issues, EPA initially seeks advice regarding each of 7 specific phthalates: diethyl phthalate (DEP), di-isononyl phthalate (DiNP), dibutyl phthalate (DBP), di-isobutyl phthalate (DiBP), butyl benzyl phthalate (BBzP), diethylhexyl phthalate (DEHP), and diisodecyl phthalate (DiDP); additional phthalates may subsequently be added to this list.

II. BACKGROUND

EPA is currently developing or considering developing Toxicological Reviews of 7 phthalates: DEP, DiNP, DBP, DiBP, BBzP, DEHP, and DiDP. The Agency now seeks to recruit one or more experts in exposure assessment in epidemiological studies of phthalates to provide guidance and clarification regarding the state of the science with respect to this area. The expert(s) shall be asked to prepare a draft summary of relevant research pertaining to specific exposure measurement issues that may inform the interpretation of epidemiological studies included in the draft Toxicological Reviews.

The overall objective of this WA is to identify, recruit, and manage one or more experts to provide guidance and clarification regarding interpretation of exposure measures in epidemiological studies of phthalates, and to provide a transparent and comprehensive review of published studies pertaining to specific issues related to phthalate exposure assessment methods in epidemiological studies. The recruited scientist(s) will conduct a review of relevant primary source data pertaining to the specified research questions, prepare a tabular display

of data from these sources, and prepare a draft synthesis of conclusions that can be drawn from the data. It is expected that this material could be the basis for one or more publications to be developed in collaboration with EPA staff members.

III. STATEMENT OF WORK

Task 1: Establish Communication (completed in previous fiscal year)

Within 3 days of start date of this WA, the Contractor shall schedule a conference call (not to exceed 1 hour) with the WAM and appropriate contractor staff to clarify outstanding questions and confirm the schedule and specific tasks.

Task 2: Work Plan, Staffing Plan and QAPP (completed in previous fiscal year)

The Contractor shall prepare a Technical Work Plan describing how the work outlined in this Performance Work Statement will be performed, including deliverables, a schedule, budget, and level of effort. The Contractor shall also prepare a Staffing Plan, which shall be submitted as part of the Work Plan and which shows assigned personnel by task and the qualifications of the proposed personnel. The Contractor shall provide expertise in the areas of project management and communication skills.

The contractor must prepare a QAPP. In the QAPP the Contractor must address how it will consider the use of existing data to carry out this PWS. Existing data are defined as environmental or health data that were developed for a different purpose. This includes data used from citations found in the literature. See these documents - "[*EPA Quality Manual for Environmental Programs*](#) EPA CIO 2105-P-01-0"

(<http://www.epa.gov/irmpoli8/policies/2105P010.pdf>, "[*EPA Requirements for Quality Assurance Project Plans \(QA/R-5\)*](#)", and "[*Guidance for Quality Assurance Project Plans \(G-5\)*](#)", <http://www.epa.gov/quality/qs-docs/g5-final.pdf>.

The QAPP shall be submitted simultaneously with the Work Plan for approval.

Task 3: Identify and Recruit Expert(s) (completed in previous fiscal year)

The Contractor shall identify and contact one or more federal or non-federal experts with an expertise in exposure assessment in epidemiological studies of phthalates. Potential invitees shall possess a Ph. D. in a relevant field or Master's degree in a relevant field and 3 years relevant work experience; potential invitees shall also possess authorship of peer-reviewed publications relating to this area of expertise. Contractor shall submit a bio-sketch of potential invitees so that the WAM may determine whether invitees meet minimum desired qualifications.

Task 4: Provide Background Material to Recruited Expert(s) (completed in previous fiscal year)

The Contractor shall provide EPA materials to the selected expert(s). This material will include a copy of the QAPP, a list of specific research questions, list of specific phthalates, and example of a synthesis of conclusions.

Task 5: Arrange Periodic Teleconferences with Expert(s) (completed in previous fiscal year)

The Contractor shall arrange and provide logistical support for teleconferences with WAM, appropriate EPA and contractor staff, and selected expert(s) at the initiation of the project and after delivery to EPA of each of the deliverables.

Task 6: Manage Written Materials Prepared by Expert(s)

The Contractor shall manage the collection of the written material prepared by the expert(s). The Contractor shall provide the WAM with these materials within 2 days of their receipt by the Contractor. EPA anticipates that material to be provided by the expert(s) will include (but is not limited to) 1) list of relevant references and description of search strategy used to identify and select these references, 2) tabular display of data relating to specific questions, 3) draft synthesis, and 4) full report. The tabular display and draft synthesis may be prepared in two sets, with a selection of 3-4 phthalates (to be determined by EPA) in each set (e.g., set 1 including DiNP, DiBp, BBP, and DiDP; set 2 including DBP, DEHP, and DEP).

Task 7: Coordinate literature tagging in HERO

The Contractor shall coordinate uploading of relevant references and tagging in HERO.

IV. ANTICIPATED DELIVERABLES

All products by the Contractor must be of high quality, written in a clear concise style, with a logical organization and presentation. All deliverables shall be provided in electronic format in Microsoft Word.

V. DELIVERABLES AND SCHEDULE

Task	Deliverable Due Date
Task 1. Initial Conference Call	3 days after receipt of Work Assignment
Task 2. Work Plan and Staffing Plan	15 days after receipt of Work Assignment
Task 3: Identify and Recruit Expert(s)	No more than 30 days after award
Task 4: Provide Background Material to Recruited Expert(s)	No more than 5 days after recruitment of expert(s)
Task 5: Arrange Periodic Teleconferences with Expert(s)	No more than one week after recruitment of expert or submission of material to EPA
Task 6: Manage Written Materials Prepared by Expert(s): a) Initial list of relevant references and description of search strategy used to identify and select these references b) tabular display of data relating to specific questions for first set of phthalates c) draft synthesis for first set of phthalates d) tabular display of data relating to specific questions for second set of phthalates e) draft synthesis for second set of phthalates f) full report and final list of references	Within 3 days of receipt from expert(s)
Task 7: Coordinate literature tagging in HERO	Within 2 weeks of receipt of full report

Note: All days are calendar days.

VI. MANAGEMENT CONTROLS

1. All deliverables shall be reviewed for conformance to the requirements of this work assignment before being approved as final.
2. The contractor shall comply with other applicable requirements for final work assignment reports stipulated in contract.

VII. NOTICE REGARDING GUIDANCE PROVIDED UNDER THIS PROJECT

Guidance is strictly limited to technical and analytical support. The contractor shall not engage in activities of an inherent governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the contractor receive any instruction from an EPA staff person that the contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or work assignment, the contractor shall immediately contact the PO, WAM, or CO.

VIII. SPECIAL CONDITIONS AND ASSUMPTIONS

The contractor shall hold a conference call with the EPA WAM at the initiation of the work assignment, and shall provide a bi-weekly update to the WAM by telephone for the duration of the work assignment, in addition to the standard reporting requirements of the contract.

IX. EPA CONTACT INFORMATION

Copies of all correspondence pertaining to the performance of this work assignment shall be sent to the PO.

Work Assignment Manager (WAM):

Glinda Cooper, Ph.D.

Phone: 703-347-8636

Fax: 703-347-8689

Email: cooper.glinda@epa.gov

Alternate WAM:

Susan Rieth

Phone: 703-347-8582

Fax: 703-347-8689

e-mail: rieth.susan@epa.gov

Mailing Address:

U.S. Environmental Protection Agency - Office of Research and Development

National Center for Environmental Assessment (8601P)

1200 Pennsylvania Ave. NW

Washington, DC 20460

Overnight Delivery location:

Two Potomac Yard (N-8315) 2733 S. Crystal Drive

Arlington, VA 22202

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 1-29				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-14-001		Contract Period 11/01/2013 To 10/31/2015 Base Option Period Number 1		Title of Work Assignment/SF Site Name Phthalates for IRIS Assessment						
Contractor ICF INCORPORATED, L.L.C.				Specify Section and paragraph of Contract SOW A. Assessment Issues & Documents						
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 11/13/2014 To 10/31/2015				
Comments:										
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>										
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SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00		LOE: 0						
11/01/2013 To 10/31/2015										
This Action:		\$18,112.00		135						
Total:		\$18,112.00		135						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 12/01/2014		Cost/Fee: \$18,112.00		LOE: 135						
Cumulative Approved:		Cost/Fee: \$18,112.00		LOE: 135						
Work Assignment Manager Name Glinda Cooper <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
						Phone Number 703-347-8636				
						FAX Number:				
Project Officer Name Melissa Revely-Wilson <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
						Phone Number: 703-347-8523				
						FAX Number: 703-347-8696				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
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Contracting Official Name Adam Meier <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
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